

# THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LI.

SATURDAY, OCTOBER 1, 1887.

No. 14.

## ORIGINAL ARTICLES.

### RECENT ADVANCES IN THE TREATMENT OF PULMONARY CONSUMPTION.<sup>1</sup>

BY SOLOMON SOLIS COHEN, A.M., M.D.,

LATELY CHIEF OF THE MEDICAL CLINIC, JEFFERSON MEDICAL COLLEGE HOSPITAL, PHILADELPHIA.

WHETHER our efforts be directed toward cure—that is, toward putting our patients in a condition that permits them to recover; or whether we aim at the prevention, which is better than cure; excluding from consideration measures purely palliative, the objective therapeutic point may be summed up in one word—Nutrition. Of those methods intended to promote nutrition, first in importance comes the subject of superalimentation; to which the prominent attention it deserves was directed by Debove's communications upon forced feeding, or gavage, in 1881 and 1882.

Debove being convinced that many consumptive patients, despite loss of appetite, maintained comparatively good powers of digestion and assimilation, determined to resort to mechanical feeding. He therefore passed into the stomach, through the mouth, a flexible rubber tube connected with a funnel (such a tube as had been employed for lavage—washing the stomach—and the method of introducing which will be described in the latter connection); and by this means introduced much larger quantities of food than the patients would voluntarily swallow. The taste of the aliment thus administered becomes a matter of no consequence, and we are, therefore, able to select that which will give the most nutriment in the smallest bulk. Meat powders were adopted as the basis of Debove's nutritive mixtures; but milk, eggs, soups, and farinaceous powders may be used, either separately or in conjunction therewith. When necessary, pepsin, pancreatin, hydrochloric acid, etc., may be added, or peptonized aliments be employed. A mixture that was used with advantage by Dr. Stern, of Philadelphia, and myself, in the cases of two patients treated at the Philadelphia Polyclinic, consists of a quart of milk, two tablespoonfuls of beef powder, three eggs, fifteen grains of scale pepsin, and thirty drops of dilute hydrochloric acid, warmed, and administered twice a day; the patient eating what he wished in the interval. In hospital service, forced feeding is practised three times daily, but in private practice, we must be content with what is possible.

Meat powders may be purchased in the shops, or can be prepared at home by cutting boiled meat into little pieces, drying thoroughly by means of a water bath, and grinding in a coffee mill. Powder

so prepared is said by Dujardin-Beaumetz to answer its purpose very well. The farinaceous powders used in France are prepared from cooked lentils, malted lentils, and maize. I have no personal experience with them, but they are said to be highly nutritious. About seven ounces of the alimentary powder, whether meat or farina, or both, are mixed with a quart of milk or water, or milk and water; the milk being added slowly to form a paste, which afterward dissolves readily in the additional liquid. When the long tube of Debove cannot be passed, or when patients will not allow it to be passed, it often suffices simply to pass the entrance of the œsophagus with a shorter tube, as recommended by Stoerk; or to make use of the special apparatus of Dujardin-Beaumetz or Bryson Delavan, which consists of a glass jar with two tubes; one of which, above the level of the fluid, communicates with a hand-bulb for supplying compressed air, the other, below the level of the fluid, communicating with a short œsophageal sound of small calibre; an ordinary rubber catheter will answer at a pinch. When the bulb is compressed, the fluid food is driven over. Efforts of swallowing on the part of the patient will facilitate the process.

From the reports made by reliable observers in France and elsewhere, as well as from a few cases under my personal observation, I feel no hesitancy in affirming that remarkable gains in weight may be obtained from forced feeding, and that very often there will be concomitant recession in febrile and other phthisical phenomena. Improvement in physical condition of the lungs has been reported, but I have never succeeded in keeping a patient under the treatment long enough to verify this by personal observation. American patients in private or dispensary practice are not as tractable as foreign ones, in these matters, and I have had no opportunity of conducting the treatment of phthisis in hospital inwards. To secure the benefits of superalimentation with the great run of patients, I have had to employ alimentary mixtures similar to those of the gavage process, by natural methods. The general dietary advised is a largely nitrogenous one, of which beef, raw or rare, broiled or roast, forms the principal item; there being added sufficient milk, eggs, fish, lamb, mutton, poultry, leguminous vegetables, and greens; fruits in season, large quantities of butter, with small quantities of bread, potatoes, and starchy foods in general. Alcohol is employed as a food when it is necessary to obtain force with the least expenditure of digestive energy.

Fried foods of all kinds, pastry and other indigestible matters, are of course prohibited. Patients are advised not to allow more than three hours to pass without taking food, except during sleep; to drink a glassful of cream or milk, or cream punch,

<sup>1</sup> Read before the Medical Society of the State of Pennsylvania, June 30, 1887.

milk punch, or egg nog, just before going to bed, and to have milk at hand to drink in case of waking during the night or early morning. Not more than three set meals daily are advised, but in the intervals milk, with or without alcohol, chicken soup, bouillon, rich broths, etc., are administered; as a vehicle usually, for the beef-peptonoids of a well-known firm of American manufacturing chemists. Of this preparation it is endeavored to give not less than two ounces daily, and the amount may be increased as circumstances require. Various preparations of meat-juice purchased in the shops, or prepared at home, may be used in the same manner, according to indications. The aim of the treatment is to supply enough nutriment not alone to counterbalance current waste, but to make up previous excess of waste over repair, and the details must be elaborated in each case with regard to individual condition. Cod-liver oil, we well know, is an advantageous addition to the dietary in some cases, but not so many as we have supposed. At least it is not indispensable. Oleaginous inunctions are often of considerable benefit.

When overfeeding by natural methods fails, or when the patient is unwilling or unable to swallow the necessary quantity and quality of food, resort should be had without hesitation to the œsophageal tube and forced feeding.

But having supplied the proper kind and amount of aliment, we must place our patient in a condition to digest and assimilate it. It is true, as already suggested, that we may make use in certain measure of predigested foods, and that we may assist digestion in other instances by the administration of the digestive ferments; but our endeavors must not cease there.

The problem before us naturally divides itself into three parts: First, the preparation of the digestive tract, to elaborate and to absorb the chylous fluids—primary assimilation. Second, the promotion of the complex process of the breaking down and displacement of imperfect tissues and effete products, and replacement by new and vigorous tissues, with evolution of forces required in the economy; *i. e.*, metabolism—secondary assimilation; and third, the promotion of the excretion of waste products.

The first desideratum is endeavored to be secured by methods which cleanse, disinfect, and stimulate the digestive canal; varied in detail according to circumstances. When we have reason to suppose, for example, that a sluggish gastric catarrh interferes with digestion, washing out the stomach may be practised with good effect. The procedure is quite simple. A stomach-tube of similar material to French catheter tubing, about 28 inches long, and from  $\frac{3}{4}$  inch to  $\frac{1}{4}$  of an inch in diameter, is attached by a short section of glass tubing, to a soft rubber tube about one yard long, in the extremity of which is inserted a hard rubber funnel of about six-ounce capacity. The stomach-tube having been dipped into warm water or warm milk, is introduced into the œsophagus and propelled by successive pushes, or swallowed by the patient; and the funnel being sufficiently elevated, from a pint to a quart or more of warm water (100° F.), in which is dissolved a

drachm or two of borax, table salt, or baking soda, is slowly poured into the funnel. As the last of the fluid is passing out of the funnel, the latter is rapidly inverted over a receptacle on the floor, and the contents of the stomach are thus siphoned out. The manœuvre is repeated until the returned water is clear. This process, called lavage, which, as already stated, suggested gavage, and is practised in much the same manner, leaves the gastric mucous membrane in excellent condition for digestion and absorption. It may be immediately followed by gavage, as recommended by Dujardin-Beaumetz. The drinking of half a pint to a pint of hot water, half an hour to an hour before meal time, will sometimes accomplish much the same purpose, and is, of course, less troublesome.

When a condition of septic fermentation is believed to interfere with digestion, a suitable antiseptic agent, such as carbon-disulphide water or solution of hydrogen dioxide, may be introduced into the lavage solution, and a portion allowed to remain a few minutes in the stomach; or creasote, carbolic acid, iodoform, the solutions mentioned, or other agents may be administered in the ordinary way. When the intestinal canal is believed to be the seat of the trouble, we may attempt to wash it, indirectly, by lavage, or by potatoes of hot water, or to medicate it with creasote, bismuth, sulphocarbolates, mercurials, iodoform, sulphides, naphthalin, or other appropriate drugs. I have reason to believe from the effect produced upon some cases of phthisis attended with diarrhoea, that the injection per rectum, of hydrogen sulphide, directly or indirectly arrests septic fermentations in the small intestine.

To aid digestion, stimulate digestive secretion, and promote absorption, in addition to the measures already referred to, preparations of malt, Hoffmann's anodyne, bitter tonics, nux vomica, arsenic, preferably Fowler's solution, iron, nitro-hydrochloric, nitric, and phosphoric acids, trinitrin, and other appropriate medication may be employed when indicated.

Nutriment being administered, digested, and absorbed into the blood, must be converted into vital forces, and into tissue. Exercise and respiration are the natural means to effect this. "Respiration," said Arbuthnot, "is the second digestion."

When the patient is able to carry out the instructions, and when there is a sufficiency of unimpaired lung tissue, respiratory gymnastics, and voluntary forced respiration may suffice. Ordinarily, however, these measures will not be efficient, and must be replaced or supplemented by a method which affords mechanical assistance to respiration, independent of voluntary exertion. This method offers itself in the inhalation of compressed air, a subject which will always be associated with the name of its great promotor, Waldenburg. The air is inspired under an excess pressure, gradually increased from  $\frac{1}{10}$  to  $\frac{1}{4}$  up to  $\frac{1}{4}$  or  $\frac{1}{3}$  of an atmosphere. Expiration is ordinarily made into the atmosphere; sometimes into rarefied air. The inhalations are administered once or twice daily. At each period, ten or fifteen, twenty-five or thirty, up to one hundred or more

respiratory acts are completed in five to fifteen minutes, and the process is repeated after an interval of about ten minutes.

The value of this procedure as an aid to nutrition, formed the theme of a paper I read before the Pennsylvania State Medical Society last summer, and needs not now to be elaborated. Let me, however, briefly recapitulate the principal points. The inhalation of compressed air dilating the air-cells as it does, by gentle and equable pressure, aids nutrition by securing the proper exposure of venous blood to the atmosphere, facilitating the disengagement of carbon dioxide and the taking up of oxygen to be carried by the hæmoglobin to the tissues, and assist in force-production and tissue-building. The mechanism by which this is accomplished is complex. The air passages are cleansed from decomposing products of secretion and desquamation, and the alveoli are reopened in unused, blocked, and partially consolidated areas of pulmonary tissue, thus securing efficient pulmonary ventilation. Increase of partial pressure, favors dissociation of carbon dioxide and association of oxygen in the pulmonary capillaries. Direct pressure and pressure differentiation tend to promote the relief of congestion in the lungs, the absorption of inflammatory congeries of new cells, and the stimulation of both intra-pulmonary and peripheral circulation. Increase of blood pressure, further, stimulates the production of lymph. Thus is secured not alone the exposure by increased volume and rapidity of pulmonary circulation, of a greater number of corpuscular oxygen carriers to the increased volume and weight of inspired oxygen, under the conditions most favorable to oxidation of hæmoglobin, but also the penetration of the corpuscles with their vitalizing burden in the nutrient lymph-stream, further into the tissues. This latter effect may theoretically be heightened, by a measure advocated by Prof. Bartholow in simple anæmia, with sluggish peripheral circulation; namely dilatation of the terminal vessels by means of trinitrin (nitroglycerin). I have as yet no available experience with nitroglycerin in phthisis.

One circumstance which had long militated against the popularization among the profession of pneumatic treatment, was the cost and cumbersome clumsiness of the necessary apparatus. In 1883, with the assistance of Mr. Charles Richardson, of the house of Queen & Co., Philadelphia, I succeeded in largely obviating these objections by means of an apparatus, which can not only be employed in the physician's office, but may be entrusted to the management of the patient or his friends at home, and is comparatively inexpensive. It is fully as efficient as the apparatus of Waldenburg upon which it is modelled, and like its original, is superior to a certain widely advertised and extravagantly costly patented instrument, devised in 1885. It consists simply of a small gasometer and a foot-bellows. The inner cylinder is weighted at the bottom, in order to throw the centre of gravity as low as possible, and preserve its steadiness without pulley or flanges. Air is pumped in by means of the foot-bellows, the supply valve of the latter being connected with a rubber tube of large aperture, which is placed out of the window,

to secure pure, fresh air. Without additional weighting the inner cylinder gives a pressure of  $\frac{1}{40}$  of an atmosphere. By placing additional weights on top, the pressure may be increased to any desired amount up to one-fortieth of an atmosphere. The supply of air is continuous, and the patient may inhale directly from the apparatus, or the stream of inspired air may be made to pass through a Wolff bottle containing terebene or other volatile medicament.

The mouth and nose are covered with a mask to exclude atmospheric air, and the ingress and egress of respired air are regulated by a stopcock. For detailed information as to the use of compressed and rarefied air, time requires me to refer to my previous communications, or to the text-books on inhalation.

To the administration of compressed-air inhalations, twice a day, is to be added, when possible, due exercise in the open air; and when this is not advisable or possible, passive exercise by massage, frictions, and similar measures. Three hours after meals, during the culmination of digestion and the activity of absorption is the preferable time for open-air exercise. In the presence of active febrile processes, both active and passive exercise are to be moderated or even interdicted. Compressed-air inhalations, however, need not be abandoned. Inhalations of nitrogen have been recommended to abate fever. I have not tried the measure.

Digestion, absorption, assimilation, metabolism being assisted, it remains to promote excretion of waste, in order to rid the system of the now well-recognized danger of auto-intoxication by leucomaines, ptomaines, etc., and to make room for reconstructive materials. Stimulation of the emunctories by diuretics, cholagogues, cathartics, even diaphoretics are here indicated; but drugs should be avoided as far as possible, and when absolutely indicated, only the mildest remedies are to be chosen, these being promptly discontinued when the desired effect has been produced.

Our general tonic medication, exercise, forced respiration, etc., will of course, assist directly, and indirectly, as emunctorial stimulants. The daily sponge bath, which, to the well, is a matter of comfort and cleanliness, becomes to the consumptive a measure of therapeutics. The drinking of water, preferably hot, is again applicable as the best of diuretics and a potent diaphoretic. Lemon juice and sugar may be added to render it more palatable, the former indeed, increasing its value as a diuretic. Nitro-hydrochloric acid is among the best hepatic stimulants in this connection. An enema is ordinarily the best method of emptying the bowels. To overcome intestinal torpor the same measures employed under other circumstances, nuxvomica, belladonna, faradism, etc., may be resorted to. Among the preferable cholagogue cathartics, are podophyllin and rhubarb.

The indications thus far considered may be fulfilled in the generality of cases by the following routine:

1. An abundant and proper diet, as already discussed; gavage if necessary.
2. The drinking of hot water, or hot lemonade; lavage, if necessary.



3. Moderate open-air exercise; respiratory gymnastics; daily inhalations of compressed air.

4. The administration of some such pill as this, three or four times a day: Iodoform, 1 to 2 grains, creasote one-half minim to one minim; to which may sometimes be added: reduced iron, 1 grain, or arsenious acid,  $\frac{1}{80}$ th to  $\frac{1}{40}$ th grain, the pill being made up with glucose, crude petroleum, or extract of licorice, with the addition, if indicated, of some bitter extract, such as gentian, cinchona, or nuxvomica, and dispensed in capsule. Among other useful prescriptions may be cited, when iron is indicated: Compound syrup of phosphate of iron (Parrish); tincture of chloride of iron, dilute phosphoric acid, and Churchill's syrup of hypophosphites (J. Solis Cohen); the official syrup of hypophosphites and iron, etc. Iron seems to be better borne by the stomach, and to be more readily appropriated by the red blood-globules when inhalation of compressed air is practised. I have noticed this even in non-phthisical anæmia. Cardiac weakness, excessive febrile action, and other conditions may call for appropriate medication.

Although the ordinary administration of drugs is beyond the limits proposed to be discussed in this paper, it may be interpolated, while upon the subject of internal medication, that great improvement is, in many cases, apparently due to the use of iodoform, both singly and in combination, in doses ranging from one to five grains three times daily. Gains in weight are often very gratifying, when sufficient food is furnished. Thus I recall a patient under my care in the medical clinic of Jefferson College Hospital, who, although far gone in the disease, and, doubtless, beyond the possibility of permanent restoration, gained eleven pounds in one month while taking a pill of iodoform, two grains, three times a day, and drinking from one to two quarts of milk daily, with the addition of beef peptonoids.

Crude petroleum, like creasote and tar products in general, seems to have a favorable influence upon cough and expectorations. The good effects of iron and arsenic in anæmia and malnutrition generally are well known. Their action in phthisis needs no other explanation. It is due primarily, I believe, to direct influence upon digestion; secondarily, to general stimulation of constructive metamorphosis.

Thus far we have considered, in the main, measures directed to the general system. To the inhalation of compressed air, a measure designed in part mechanically to counteract local pathological conditions, and to the administration of iodoform and creasote, drugs devoted in part to the restriction of morbid histological action, we may add some of the newer devices immediately directed against the local morbid processes, in part or in whole.

First, in this division of our theme, is the subject of medicinal inhalations. This might well be made the subject of an elaborate paper. Time permits but a hasty indication of its value. The general profession has been unaccountably slow to realize the advantage of a method which permits of direct medication of the respiratory tract in greater or less extent. This hesitation may have been pro-

duced by the extravagant claims of some unbalanced observers. I will try to avoid that error, but I cannot help speaking with enthusiasm. There are certain volatile medicaments long known to exert favorable influence upon pulmonary diseases, although the method by which they operate is a matter of dispute. From a purely empirical standpoint, then, I will enumerate; in the order of merit, those that appear to me to be the most generally useful. These are, creasote, ethyl iodide, terebene, spirits turpentine, tincture benzoin, spirits thymol, and spirits chloroform. Eucalyptol is often useful, but, in the main, has disappointed me. Whatever the reason may be that the atmosphere of pine woods benefits those suffering with chest troubles, is the reason that terebinthinate inhalations at home have sometimes an almost equally good effect; especially so, it seems, if combined with oxygen. Ethyl iodide, besides some specific effect of its own, offers a ready means of local and general iodization without disturbing the stomach; to preserve it, it should be mixed with alcohol, and dispensed in a dark bottle.

In chronic processes, creasote, terebene, and ethyl iodide are employed for general good effect. To control subacute epiphenomena, terebene and ethyl iodide are most frequently resorted to. Benzoin is preferable for acute catarrhal processes. Thymol is sometimes substituted for creasote when the odor is a source of complaint. Chloroform finds indications as a sedative to troublesome cough, and as a mitigant of the sharpness of some specimens of terebene. Burroughs and Welcome's terebene is to be preferred for internal use, but the commercial terebene (Merck's) seems better for inhalation, and very often requires the admixture of chloroform or spirits of chloroform. These agents may be inhaled from a wide-mouthed vial, but preferably from the sponge attached to the little perforated zinc respirator, devised by Dr. Burney Yeo, of London, which may be worn almost continuously, with very little inconvenience, thus keeping up a desirable effect. Many patients wear the respirator during sleep, and are perfectly comfortable. Fifteen or twenty drops of a mixture consisting, for example, of equal parts of creasote, terebene or ethyl iodide, and spirits of chloroform or alcohol, may be dropped on the sponge, and renewed two or three times a day. One of the volatile substances enumerated may be floated on the surface of water in a Wolff bottle, connected with the compressed-air apparatus, or with a reservoir of oxygen. Terebene is the one usually chosen for this purpose. Vapour sprays of various antiseptic, stimulant, or sedative solutions may be administered by means of the Oliver or globe atomizer, or one of the many contrivances depending upon the same principle—a combination, that is, of the Bergsson and Sales-Giron methods of nebulization, giving a very fine mist which apparently penetrates the air-passages for some distance. Messrs. Codman and Shurtleff have, at the suggestion of Dr. J. Solis-Cohen and myself, arranged a neat combination of the Oliver atomizer with the stopcock of a compressed-air apparatus. Should this device stand the test of experience, I will describe it in a future paper. Hydrogen dioxide



suggests itself as a valuable drug for use in this manner.

Acting upon a recommendation of Prof. Bartholow's, I am making some observations on the inhalation of sulphurous acid gas, an old remedy, by a new method. It has been found that carbon dioxide and sulphur dioxide, both extremely rebellious gases when attempt is made to liquefy them separately, may, by a comparatively slight pressure, be together brought into a liquid form and confined in an ordinary mineral water siphon bottle. On releasing the pressure, they immediately return to the gaseous state, and the air of an apartment may thus be readily charged with any desired quantity. The diffusion and probably the mixture with carbonic acid, robs the sulphurous acid, to some extent, of the suffocating properties it exhibits when inhaled undiluted. The dose is to be regulated in each case by the individual capacity to breathe the sulphurous atmosphere—which varies greatly—and the patient is to pass as much time as may be practicable in the medicated apartment.

Sufficient time has not elapsed since I have been able to obtain the liquid referred to, to venture a positive expression of opinion from my individual experience. I believe that it will prove to be a valuable addition to our resources. This leads, naturally, to the subject of gaseous injections of carbonic acid and hydrogen sulphide. At the time that I had announced the sub-titles of this paper, the Bergeon method of treating phthisis was a novelty in this country; but as the members of this Society are now beyond doubt thoroughly familiar with it, instead of describing the process in full, I shall simply give a few practical points, the result of personal experience: First, as to the method of preparing and using the gases, and, secondly, as to what may and what may not be expected of it.

The intelligent physician will "prove all things and hold fast to that which is good;" even though imperfect experience may decry as utterly useless that for which unbalanced enthusiasm had claimed too much. He will not hold scientific investigators responsible for the vagaries of irresponsible newspaper reporters, nor reject that which palliates, because it does not infallibly cure. In the first place, we must remember that the effect of the Bergeon injections is produced by the elimination of the hydrogen sulphide (or other active agent) through the air tract. Unless we obtain evidence of this elimination by recognition of the odor in the expired air, or the blackening of test paper of plumbic acetate (in case  $H_2S$  be employed) by the breath, we are not securing the proper effects, and cannot expect improvement. Failing to secure this evidence in many cases, with most of the natural waters used, I have been well satisfied by the use of the solution recommended by Yeo after Bardet, which is prepared by adding to eight ounces of water three drachms each of the following solutions:

- |                                      |          |
|--------------------------------------|----------|
| No. 1.—Sodium sulphide (c. p.) . . . | 3ss.     |
| Distilled water . . .                | f3vj.—M. |
| No. 2.—Tartaric acid . . .           | 3j 3ij   |
| Salicylic acid . . .                 | 3ss.     |
| Distilled water . . .                | f3vj.—M. |

Secondly, to avoid colic and griping pains we must be sure no air remains in bag, bottles, tubes, or any part of the apparatus, and must warm the injected gases.

Thirdly, twenty minutes to half an hour must be consumed in the process. From four to six quarts of carbon dioxide should be used at each injection, after the first few to establish tolerance. The patient should remain recumbent for half an hour after the cessation of the injection.

Fourthly, the best times for injections are just before breakfast, and just before going to bed—i. e., three hours after supper.

Fifthly, patience and perseverance are necessary, both on the part of patient and physician.

Sixthly, tartaric acid is more easily carried and more neatly handled than sulphuric acid, and will disengage carbonic acid from sodium bicarbonate as quickly. About two parts by measure of tartaric acid to three of sodium bicarbonate is a good working rule.

This method of treatment is not designed to destroy the bacillus tuberculosis, but to remedy those local conditions, mainly suppurative, which permit this microbe to find a suitable habitat in the lungs. A significant fact lately reported, and, if verified, of vast scientific importance in correcting current errors as to etiology, is that the sputum of patients thus treated, fails to produce tuberculosis in animals.

The effects of the treatment, as I have seen them in many, but not in all cases, are more or less rapid reduction in temperature, diminution of cough, improvement in the character of expectorated matters, promotion of sleep, increase of appetite, cessation of night-sweats. These palliative results, great in themselves, are still greater in the removal of obstacles to nutrition. The physical signs attributable to collateral catarrh and suppurative processes subside. I have seen no cure, but then there has not been time either to permit recovery or to test its reality. I have not noticed any marked recession in physical signs in the lung due to the tuberculous process itself; but in two cases, patients of Dr. J. Solis-Cohen's, I have seen cicatrization of laryngeal ulcerations apparently tuberculous, with subsidence of pyriform tumefactions. This is a rare occurrence, even with assiduous local treatment, and in these instances local treatment was not instituted. In no case, however, have we abandoned superalimentation, or refrained from medication when it seemed to be indicated. I regard the Bergeon process as a good adjuvant to other treatment, but until I have larger and longer experience therewith, I should hesitate to place sole dependence upon it. To establish its proper value we must employ it in all cases, and find out in what group it seems to be most useful. I should say from my own experience, and from what I learn from my friends in Philadelphia, that the cases in which it appears to be most efficacious are neither those where the lung is hopelessly broken down, and it is powerless; nor those in which softening has not begun, and it is unnecessary; but those in which septicæmic processes, due to pulmonary suppuration, are a source of danger and a cause of depression; yet in which there is still a

hope of prolonging life if the suppurative process can be controlled. When this has been accomplished, I should then feel disposed to resort to inhalations of compressed air. The latter are, indeed, the one great dependence in cases of early phthisis, and were I compelled to choose between compressed-air inhalations and all the drugs of the pharmacopœia, I should unhesitatingly prefer the former. I know that I have seen consumption cured by its means. I have seen cases, in the practice of my brother, that have remained well for ten years, and know of some still living that have survived the predicted time of death even longer; and I am happy to say in conclusion that the patients of my own, whose cases I reported to this Society last year, are still alive, and to all appearances perfectly well. The treatment adopted in these cases and carried out at home—obviating the expensive and often futile quest after a health-restoring climate—was superalimentation, compressed air, ethyl iodide and terebene inhalations, iodoform, creasote, and iron internally; measures directed not against a microbe, which is the evidence of disease, but against the malnutrition, which is its cause.

#### GLIOMATOUS HYPERTROPHY OF THE PONS.<sup>1</sup>

BY HENRY HUN, M.D.,

PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM AND OF PSYCHOLOGICAL MEDICINE, ALBANY MEDICAL COLLEGE.

GLIOMATA of the pons are rare, and but few cases of them are to be found in medical literature.<sup>2</sup> Therefore it seems to me to be desirable that the following case, which is a beautiful example of such a tumor, should be published.

*CASE.—Steadily increasing incoordination of movements, bulbar paralysis, and general motor paresis. Gliosarcoma of the pons Varolii.*

April 17, 1886. C. L., female, æt. six. The father of the patient died a little more than a year after she was born, with symptoms of melancholia and dementia. An autopsy was held, of which I can obtain no account except from his widow, who says that there was found "water on the brain and tumor of the brain." There have been many cases of nervous disease in the family of the father, but none in that of the mother. Patient has had a number of attacks of spasmodic croup, and three years ago had measles. For a number of years her left leg has become tired easily, and for some time she wore a rubber strap on her left foot, which showed a tendency to turn in. Otherwise she has been in excellent health till two months ago, when she had an attack of croup followed by a cough. Every time that she coughed she felt a severe pain in the top of her head, and felt a pain in her head at no other time. About three weeks ago she began to walk badly, and seemed to have trouble in balancing herself when standing. Her mind is clear, her memory is good, and she is not in any way nervous. She has an excessive appetite, and has vomited a little at times.

She is a well nourished, intelligent girl, but has a vacant expression. Her speech is drawing. She keeps her mouth open most of the time, drools when eating, and has some difficulty in swallowing. Her head is drawn toward the right shoulder most of the time, espe-

cially when she makes any exertion. She stands with her feet wide apart, and is careful not to lose her balance. When she walks her right leg seems more rigid than her left; so that she takes freer and longer steps with her left leg, and consequently in walking she tends to walk in a circle, turning always toward the right. Her walk resembles that of a drunken person; being very unsteady, swaying, and pitching, as if every moment she were about to fall. Her legs and arms are rather weak, and the movements of her arms, especially of the right, are very awkward, but she holds them in no fixed position. There is no disturbance of sensibility in any part of the face, body, or extremities, and she recognizes objects placed in her hand when her eyes are shut. Plantar reflexes normal, no ankle clonus, knee-jerk exaggerated, especially on the right side. On ophthalmoscopic examination well-marked optic neuritis is found in both eyes. Urine contains neither albumen nor sugar.

May 21. She has slowly but steadily failed. Her legs and arms are now not only awkward, but also very weak. Her legs bend under her when she bears any weight on them, and she can neither walk nor stand. In addition to the weakness of the legs, there is a trace of spasm about them, but no ankle clonus can be obtained. Tactile, painful, and thermic sensibility is normal in all parts of the body. She is dull, but her intelligence seems intact, and she shows little if any loss of memory. Her articulation is indistinct, deglutition is difficult, uvula is raised very sluggishly, though equally, on both sides, and the movements of the tongue are sluggish, although it is protruded without deviation. She still drools much, especially while eating and at night. Pulse is small, and varies from 120 to 140. At times when she is asleep her respiration is very rapid and panting, but it is rather slow when she is awake. When asleep her eyelids are partly open, and the eyeballs are turned outward, but when she is awake the eyeballs, at times, turn slightly inward, so that she squints, although no paralysis of any of the ocular muscles can be detected. Up to this time she has been taking pot. iodid. grs. 20 and pot. bromid. grs. 15 t. i. d., without any good effect. This was stopped to-day, and a pill containing phosphorus gr. 10, ferri carb. gr. 1, quin. sulph. 1, and ext. nuc. vom. gr. 1/2, was given t. i. d.

June 4. She has been decidedly better lately. Her articulation and deglutition have improved slightly. She is brighter and can sit up without assistance, but cannot walk. The day before yesterday a well-marked ankle clonus could be obtained in both feet during the whole day, which has not been present either before or since. She complains of no headache, except the pain in the vertex when she coughs.

June 13. During the past week she has steadily and rapidly failed. On some days the left arm and leg have appeared completely paralyzed, while on other days she would move them a very little. She has been able neither to talk, walk, stand, nor even to hold her head up, which falls backward, forward, or to either side, according to the position in which she is held. Her hearing and cutaneous sensibility have remained unaffected, and her sight is but very slightly impaired. Lately she has given indications of having pain in the occipital region, and there has been a decided increase in the size of her head during the past week or ten days. She has had no convulsions. Her pulse has been small and feeble. This morning her respiration was stertorous for a few hours, and then became normal again. Her intelligence seemed clear until the very moment of her death, which took place quietly and suddenly this evening.

Autopsy, held twenty-four hours after death; head only examined. Bones of skull rather thin. Dura mater only slightly adherent to skull-cap. Increased

<sup>1</sup> Read before the American Neurological Association, July, 1887.

<sup>2</sup> Neurolog. Centralb., 1883, p. 5.

amount of subarachnoid fluid. Cerebral convolutions flattened, and cerebral substance very cedematous. Corpus callosum is pressed upward and is very soft and thin, and almost broken through. Great and uniform dilatation of both lateral ventricles, which are filled with fluid of normal appearance. No dilatation of the third and fourth ventricles. Cerebellum normal. The pons Varolii, as seen both from the base of the brain and from the fourth ventricle, is greatly enlarged; being three or four times the normal size. On section the whole pons is found to be replaced by a tumor, apparently a glioma, which preserves wonderfully the normal appearance of the part, so that it looks like a greatly hypertrophied pons. A little posterior to the middle of the pons on the right side, is a focus of softening, spherical in shape, and about three-quarters of an inch in diameter. When hardened, a section of the pons at its largest point measured two and a half inches in width and one and three-quarters inches in depth. The tumor seems to be confined pretty accurately to the pons; the crura cerebri, and the medulla oblongata being but slightly enlarged.

On microscopical examination the nervous elements of the pons are found to be encroached upon, infiltrated, and, in some places, destroyed by a great accumulation of small cells. The prevailing character of these cells is spindle, although there is a considerable number of spheroidal cells, both large and small. There is no considerable development of "spider cells." Between the small newly formed cells there seems to be a delicate newly formed basement membrane, independent of the neuroglia. There is also present a very great many newly formed vessels full of blood. The proliferation of cells is not limited to the pons, nor is it circumscribed by any sharp line, but extends throughout the whole extent of the crura cerebri and the medulla oblongata, being less abundant the further the section is removed from the pons. In the anterior part of the crura cerebri the roof of the aqueductus Sylvii is so softened that no section of it can be made, and from the posterior portion of the third ventricle a canal about one twentieth of an inch in diameter, with well-defined walls, runs backward and downward, and terminates in a mass of softened tissue near the centre of the inferior surface of the crura cerebri. Neither the wall of this canal nor the neighborhood of the roof of the aqueductus Sylvii seems to be the especial seat of the glioma. The wall of the canal is remarkably firm and well-defined, except at its extremity where it terminates in the softened tissue on the under surface of the crura cerebri.

In regard to the exact diagnosis as to the nature of the tumor in this case, the diffuse infiltrating, rather than displacing character of the growth, makes it resemble a glioma; while the form of the cells, the presence of a basement membrane, and the absence of any considerable new development of "spider cells," is in favor of its being a sarcoma. Such tumors are sometimes called gliosarcomata; but in consideration of the remarkable way in which the normal (though hypertrophied) appearance of the pons is preserved in these tumors, it seems to me to be better to call them by the name proposed by Kuemmel,<sup>1</sup> "gliomatous hypertrophy of the pons."

The very vascular nature of such growths has been described by Spitzka<sup>2</sup> and others. Gerhardt<sup>3</sup> says that the vascularity of these tumors is so great that

temporary congestions may lead to fatal attacks of apoplexy, and that frequent attacks of temporary paralysis and apoplexy are characteristic of gliomata, because of their great vascularity. The little canal which ran through the crura cerebri, connecting the third ventricle with the base of the brain, is of interest. It is evidently analogous to the fissures sometimes found in the posterior horns of the spinal cord, which Schultze<sup>1</sup> has pointed out, are usually due to softening of gliomata. Similar changes have been described by Fuerstner and Stuehlinger<sup>2</sup> as occurring in the cerebral cortex. In this case the softening extended across the crura cerebri in a straight line to the third ventricle. It is possible that this softened tissue was simply absorbed, and that the canal was thus formed; but it seems to me much more probable that the pressure of the fluid in the ventricles, which was great enough to cause a thinning and almost a perforation of the corpus callosum, forced and washed out the softened gliomatous mass, and thus formed the canal. The patch of softened tissue near the centre of the pons, not being subjected to the pressure of any fluid, remained in situ.

Although in this case the tumor was of large size and involved a portion of the nervous system, lesions of which are especially prone to produce paralysis, yet there was no disturbance of sensibility and no absolute paralysis of motion, except that of the left arm and leg, and even this paralysis varied somewhat from day to day. Gerhardt<sup>3</sup> says that even in large gliomata permanent paralyses are often absent, because the nervous elements within the tumor are not destroyed by it. The paralysis of the left arm and leg in this case was probably due to the patch of softening in the right side of the pons, this was the only patch of softening in the tumor. Throughout the rest of the pons, medulla, and crura cerebri, the nervous elements were compressed, but not actually destroyed; and consequently, although there was widespread paresis, there was no paralysis. The nerve cells and fibres composing the gray matter which forms the floor of the fourth ventricle, were compressed by the new-formed cells of the tumor; and in consequence the patient presented the symptoms of bulbar paralysis, *i. e.*, drooling, paresis of lips, tongue, and pharynx, difficulty of articulation, and difficulty of deglutition. Belonging to this same set of symptoms are the disturbances in the centres for respiration, circulation, and the ocular muscles, which, curiously enough, were most marked when the patient was asleep. Besides the gray matter there are two great systems of fibres in the pons; one, the transverse fibres, connects the cortex of the cerebellum with that of the cerebrum, and probably transmit impulses relating to the coördination of movements; the other, the fibres of the pyramidal tract, connects the cerebral cortex with the subcortical centres and through them with the muscles, and transmits impulses for voluntary movements. Both of these sets of fibres were pressed upon by the rapidly increasing cells of the tumor and their function impaired, and consequently the earliest symptoms of the tumor

<sup>1</sup> Zeitschrift f. klin. Med., vol. ii. p. 282.

<sup>2</sup> N. Y. Med. Journ., 1886, vol. i. p. 364.

<sup>3</sup> Würzburger Jubiläumsschrift, 1882.

<sup>1</sup> Virchow's Archiv, vol. lxxxvii., p. 510, and vol. cii. p. 435.

<sup>2</sup> Archiv f. Psychiatrie, vol. xvii. p. 1.

<sup>3</sup> Loc. cit.



were incoördination of movement and weakness, which steadily increased in intensity up to the time of death. The absence of disturbances of sensibility in this case does not prove that the sensory fibres escaped the pressure, for it is well known that in cases of a general lesion of the spinal cord the motility is more easily impaired than the sensibility.

This tumor in its growth produced no symptoms of irritation, there were no convulsions, and but little headache. There was simply a steadily increasing loss of function of those nervous elements, which were subjected to the pressure of the growing tumor. It is remarkable that, notwithstanding the great amount of œdema of the brain present in this case, and an internal hydrocephalus, so extensive as to cause a perceptible enlargement of the head, consciousness and even intelligence were preserved up to the end of life.

### AN INTERESTING CASE OF SPURIOUS ANEURISM OF THE INNOMINATE ARTERY.

By H. A. HARE, M.D. (UNIV. OF PA.),

DEMONSTRATOR OF EXPERIMENTAL THERAPEUTICS AND INSTRUCTOR IN PHYSICAL DIAGNOSIS IN THE UNIVERSITY OF PENNSYLVANIA.

I DESIRE to place on record the history of this interesting case, chiefly because it is a very good example of the fact that even the most definite signs of true aneurism may be present, and yet the post-mortem examination prove the entire absence of any lesion of the bloodvessel.

The symptoms and physical signs of this lesion were so evident that I reported the case as one of innominate aneurism with aortic dilatation, in the *Medical Record* of May 16, 1886, but not until several other physicians had also reached the same opinion as to the character of the case. The reasons for my so doing become evident when the following history is read:

Annie D., æt. seventeen years, came under my care in March, 1886, complaining of cardiac palpitation and severe pain in the chest and left arm when laying down. This pain was then of about three months' duration, and was steadily growing worse. There was no history of syphilis, but there was one of frequent attacks of acute articular rheumatism, recurring every winter for the last six or seven years. Her father and a brother are also subject to the same disease, but the two remaining children are free from it. She was fairly well developed, but pale and anæmic; menstruated first at the age of fourteen years. There was no history of traumatism, or of scarlet fever.

On inspection, there was to be seen an egg-shaped protrusion in the suprasternal notch, very expansile, and bulging at each systole of the heart. The dilatation extended well up into the innominate artery for over an inch from its point of origin. Pulsation was strongly marked in all the vessels of the neck. The apex beat of the heart was in the sixth intercostal space, about an inch to the left of the nipple. There was no distinct thrill over the precordial space, but it was well marked in the suprasternal notch and over the dilated portion of the innominate artery. On auscultation over the swelling there was heard a rough and a soft murmur, accompanied by a *bruit*. Over the aortic orifice was heard a double murmur—a short, sharp, and rough systolic, and a long, softer, and more blowing diastolic.

These murmurs were very distinct over the sternal notch, the diastolic murmur becoming intensified as the ear was carried down the sternum, reaching its maximum at the ensiform cartilage. Over the pulmonary orifice both murmurs were heard, but were somewhat muffled. Both were transmitted posteriorly to the left, but did not depend on mitral disease, as they were heard more loudly over the right scapular region than the left. Both murmurs could be heard in the vessels of the neck, the diastolic feebly. There was the typical "water-hammer" pulse, 27 to the quarter minute, with marked difference in volume of the pulse in the radial arteries, both to the finger and as registered by the sphygmograph, the right falling behind the left. Abdominal pulsation could be seen, but it was not marked. Percussion revealed cardiac dilatation, with great hypertrophy. There was no dysphagia, dyspnoea, or loss of voice.

The patient was now lost sight of till September 13, 1886, when she came under the care of Dr. Griffith, to whom I am indebted for several additional points of interest. During the time she had been away the pain had become paroxysmal in character, and was sometimes preceded by unpleasant, undefined sensations. There was also, at this time, marked dyspnoea during the pain, which did not exist when she was first seen by me. The pain decreased under the use of small doses of nitro-glycerine, but no marked improvement took place. The case again passed out of sight till the middle of March, 1887, when she returned to the writer, complaining of great pain in the abdomen, half way between the umbilicus and the ensiform cartilage.

On examination, there was found a very marked localized pulsation noticeable to the eye and touch. Auscultation also discerned a bruit of a not very positive character, but fairly well marked. The pain in the chest was worse, and the whole condition of the patient far worse than when last seen.

Nothing more was heard of her till the 28th of May, when her mother came to me, stating that at 4 A.M. they had heard her coughing, and at 5 A.M. found her dead in bed. The post-mortem, made the next day by Drs. Osler and Griffith, and myself, showed very marked disease of the aortic valves, with the entire escape of the mitral leaflets, and also total absence of any structural lesion of the aorta or of the innominate artery, the coats of both of which being found smooth, devoid of calcareous deposits, and perfectly normal, except for a slight increase in elasticity when stretched; and not only was this the case, but there was no increase in the calibre of either bloodvessel after death, proving that all the symptoms seen during life had arisen from an over-elasticity, and not a rupture of any one of the coats of the bloodvessel wall. The abdominal aorta was also found to be of a normal calibre, and devoid of any pathological condition.

It will be seen that in this instance we were confronted by a case in which all the ordinary and well recognized symptoms of aneurism of these vessels were present to a well marked degree, and there was nothing to stand against the diagnosis of aneurism during life, save the age of the patient, who was, of course, unusually youthful for this affection.

It is proper to state that such cases have been previously recorded, and that, as a general rule, they occur in young females of a hysterical temperament, although they may also appear in males with the same tendencies. There is no reason, apparently, why such a condition of the bloodvessels, occurring in a person not suffering from any cardiac lesion, should provoke anything but a favorable prognosis;

and, since an unfavorable opinion may in such cases do great harm, it is well for the physician to be on his guard.

### OPERATION FOR DEFLECTION OF THE NASAL SEPTUM.

BY W. PEYRE PORCHER, M.D.,  
OF CHARLESTON, S. C.

I REPORT the following case on account of the simplicity and successful termination of the operation performed for its relief.

M. S., white, aged forty-five, had suffered from what he thought to be an unusually severe case of catarrh for five or six years, attended with exfoliation of bone.

His cartilaginous septum had become deflected to the right and depressed, causing an unsightly deformity and great difficulty in breathing.

On examination the lumen of the right nostril was found to have contracted to about the size of a small pea, as a result of adhesive inflammation, and the left nostril was greatly diminished on account of the deflection. There were also evident signs of exfoliation of bone on the right wall of the septum.

A pledget of cotton, saturated with a 10 per cent. solution of hydrochlorate of cocaine, was first introduced into each nostril, and under a continuous spray of rhigolene vapor the adhesions in the right nostril were divided, and the normal calibre restored.

A curved bistoury was then passed high up into the left nostril and through the septum, and an incision was made obliquely from above downward, and from left to right, along the line of the deflection, and extending to within one-quarter of an inch of the external end of the septum. A steel pin, upon which a small disk of rubber had been previously threaded, was then introduced into the right nostril and through the septum above and in front of the incision, its point being in the left nostril, was brought close up against the septum, across the incision and buried in the mucous membrane lining the floor of the nostril.

This, besides bringing the septum into a perpendicular position, widely distended the left nostril, and separated the walls of the right, which had been previously adherent, and he was enabled to breathe freely. A second pin was introduced, parallel to and a little above the first. On reporting at my office at 9 A.M. the following morning, the second pin was removed, as I found its point had not been carefully imbedded, and at 2 P.M. he again reported to me, stating that he had accidentally withdrawn the remaining pin, and I anticipated a prompt return of the disfigurement. This, however, did not occur. He was ordered a posterior nasal douche to keep the passages cleansed.

With a piece of cotton mounted on a small cotton carrier, I carefully prevented any return of the adhesions in the right nostril, and on the sixth day he was discharged with perfectly free respiration and scarcely a trace of his previous deformity.

This operation is recommended by Dr. J. B. Roberts, of Philadelphia, my only departure from his instructions being the obliquity of the incision from

left to right through the septum, so that in correcting the deflection the cartilage was at the same time raised, thus correcting the depression which previously existed.

### HOSPITAL NOTES.

JEFFERSON COLLEGE HOSPITAL,  
PHILADELPHIA.

#### OPERATION FOR PROCIDENTIA UTERI.

DR. A. MARTIN, of Berlin, was introduced to the Class by Prof. Parvin on September 22d, and gave a demonstration of his operation for the treatment of procidentia uteri.

Procidentia uteri, he stated, is not to be satisfactorily treated by any operation which closes a large portion of the vagina only; the cicatricial tissue so formed will not endure: the operative treatment of this affection to be successful must include the uterus, the vagina, and the perineum. The patient presented for operation, a multipara, was suffering from retroflexion, subinvolution, and unilateral cervical laceration of the uterus with procidentia.

Dr. Martin described his plan of operation (as given in his book and that of Hegar and Kaltenbach) by diagrams upon a blackboard. He stated that he preferred catgut prepared in oil of juniper for suture material, and that he employed the continuous suture on the vagina and perineum, and the interrupted suture on the cervix uteri.

Proceeding to the operation Dr. Martin employed continuous irrigation with weak bichloride solution, stating that he was thus enabled to dispense with sponges; that the hemorrhage was insignificant, and that a cleanly and antiseptic operation was thus performed.

He first drew down the uterus, and amputated its cervix by wedge-shaped excision of the anterior and posterior lips, with subsequent interrupted suture. He then proceeded to operate upon the anterior vaginal wall, stating that for denudation in such operations he preferred a knife which he had devised whose edge was so arranged as to cut in many directions. After denudation he introduced the continuous catgut suture from above downward, meeting no difficulty in coaptation until the lower portion of the denuded surface was reached, where it was necessary to introduce étagé sutures. The suture was brought back to the point of origin, and the uterus replaced with a sound.

The posterior vaginal wall was then denuded, the operation being so performed as to utilize the firm tissues of this portion of the vagina as a support for the uterus. Beginning at the vaginal column, the left side of the denuded surface was first closed, and then the right by the continuous suture. The cicatricial tissue in the perineum was then excised; a single strong suture placed at its upper extremity and the remainder closed by the continuous suture, étagé stitches being employed wherever needed; the continuous suture was brought back to the point of commencement, completing the operation.

The result was a firm perineum, a vagina restored throughout its entire extent, and a uterus replaced and

stimulated to involution by the excision of diseased cervical tissues.

The after-treatment advised was three weeks' rest in bed, the avoidance of movement of the bowels for four days, freedom from exercise for three months, and abstinence from sexual relations for eight or ten months. Ordinary precautions to secure cleanliness were to be observed. In the event of pyrexia, antipyretics were to be given. No local treatment or manipulation was desired.

## MEDICAL PROGRESS.

**TOTAL EXTIRPATION OF THE UTERUS.**—SCHAUTA, of Prague, in the *Wiener medizinische Presse* of July 3, 1887, discusses the choice between partial and total extirpation of the uterus for cancer. He quotes the statistics of those operators who favor early extirpation, as compared with partial resection, as follows:

After total extirpation 70 per cent. of patients operated upon were in good health one year after operation; 50 per cent. of those on whom the partial operation only was made. After two years 100 per cent. of recoveries from the radical operation were in good health, 40 per cent. of recoveries from the partial operation; after three years the proportion was 100 to 40 per cent.; after four years 55 to 38 per cent.; after five years 43 to 35 per cent. SCHAUTA reports a typical case in his own practice where an excellent result followed operation for the disease in its incipency. He strongly advises early and radical operative treatment.

**SULPHUR IN CHLOROSIS.**—In some cases treatment stimulates the secretory activity of the gastric mucous membrane; in others, ferruginous drugs are successful; in others, both proceedings are useless. In these latter cases there is a deficiency, not of iron, but of sulphur, without which living albumen and active cellular substance cannot exist. Basing on these theoretical considerations, SCHULZ and STRÜBING have given sulphur in chlorosis. From the six cases thus treated they draw the following conclusions:

1. In cases of simple chlorosis, in which iron has no effect, the general condition is markedly improved by sulphur.
2. After sulphur has been given for some time, treatment with iron could be started and continued successfully.
3. Sulphur is not borne in cases of chlorosis complicated with catarrhal, inflammatory conditions of the digestive tract.

R.—Sulph. depur. . . . . 150 grains.  
Sacch. lact. . . . . 300 grains.  
M. F. pulv. Half a teaspoonful three times daily.  
—*Medical Chronicle*, August, 1887.

**METRRORRHAGIA AT PUBERTY.**—DR. HENRY C. COE, of New York, reports the following interesting case of this in the *New York Medical Journal* of August 27, 1887:

A perfectly healthy girl, aged thirteen, well developed for her age, of a full habit, and has never shown any evidence of sexual precocity, or nervous excitability, began over a year ago to menstruate at long

intervals, and since spring the flow has reappeared more regularly, and on one or two occasions has been profuse, but not excessive. There has never been any dysmenorrhœa. She has now been at the seashore nearly five weeks, and has during that time been exposed to the usual excitement, late hours, improper diet, etc., incident to life at a fashionable watering-place. She has, however, neither danced nor indulged in sea-bathing. She had been at Long Branch two weeks, and was awakened during the night (July 13th) by cramps in the stomach, accompanied by a sudden gush of blood from the vagina. The flow continued steadily, and when Dr. Coe saw her the next morning she presented the appearance of a woman after a smart post-partum hemorrhage, her night-dress, the sheets, and the mattress being literally soaked with blood, while there was a large mass of blood-clot in the bed. He estimated the loss of blood at about twelve ounces. The child was kept for three days in the recumbent posture, on low diet, and had twenty-five drops of the fluid extract of *hydrastis canadensis* every six hours.

On the fifth day she was allowed to walk down stairs to breakfast; there had been no show for two days. While eating she felt a peculiar sensation in her stomach and at once returned to her room and lay on her bed. Suddenly there came a gush of blood, as on the first occasion, although the amount was somewhat smaller than before. The use of *hydrastis*, which had been discontinued, was resumed in doses of twenty-five drops every two hours without result. Several napkins were saturated in rapid succession, and the child's mother became greatly alarmed. Ergotin, in full doses, was administered every two hours, and an ice-bag was applied over the hypogastrium, but was removed at intervals of half an hour. A pint of hot water, containing two drachms of alum, was carefully injected into the vagina with great difficulty. The little patient had no pain, except an occasional cramp, which preceded the expulsion of a clot. Her pulse and temperature were not affected. The flow diminished during the afternoon, but was still excessive, even for an adult. The blood was bright-red in color, and was certainly not menstrual in character.

During the next forty-eight hours two alum injections and two drachms of the fluid extract were given daily. The hemorrhage gradually diminished until by the fourth day only two ounces of blood were lost. On the sixth day there was no show, and the patient was allowed to sit up and walk across the room, as her appetite was impaired by the close confinement. She felt a little weak, but was not otherwise affected by the loss of blood. She was not allowed to leave her room. Four days after the complete cessation of the last hemorrhage the regular menstrual flow began at exactly the proper time. There was no pain, but the flow was unusually profuse. She was kept absolutely quiet in bed during the first five days, and received twenty-five drops of aromatic sulphuric acid every six hours, with alum injections, night and morning, during the first two or three days, neither of which seemed to have the slightest influence upon the menorrhagia. Dr. Coe is convinced that the excessive loss was directly due to residence at the sea-shore.

The patient subsequently went to the White Mountains, and has had no return of the metrorrhagia.



**TREATMENT OF ACNE.**—**LASSAR** recommends a treatment of acne which, he says, is easy of application, and nearly always successful. He uses a modification of the old ointment of Wilkinson in the following form :

R.— $\beta$  Naphthol . . . . . 150 grains.  
Sulph. præcip. . . . . 750 grains.  
Vasal. flav., or Landol. puriss.,  
Sapon. viridis . . . . . aa 375 grains.  
M. leniter torendo fiat pasta.

The paste is spread in a thin layer on the affected skin, and left on for fifteen to thirty minutes. A burning sensation is felt, but this soon disappears; the ointment is then rubbed off, and powdered talc is dusted over. This is followed by a slight inflammatory reaction, which soon gives way to browning of the skin, and finally desquamation. The whole process is compared to the browning, etc., of sunburn. The desquamation may be shortened by the nightly application of a two per cent. salicyl-zinc-amylum-vaselin paste.

Lassar has employed this treatment in more than 100 cases, and relates some very successful cures of very bad cases. This paste is of service, too, in other superficial inflammatory skin diseases, as sycosis of the beard, and in lupusgranulations.—*Medical Chronicle*, August, 1887.

**LIVER ABSCESS IN CHILDREN.**—**UNGER**, of Vienna, after reviewing the recent literature of this disease, concludes that children are less liable to hepatic suppuration than adults.

With the exception of abscesses from impacted gallstones the same causes obtain in children as in adults. The symptoms are peculiar to the individual case. The most important symptom is chills and pyæmic fever in a previous disease of the area connected with portal or mesenteric veins. Percussion and aspiration will complete a diagnosis.—*Wiener medizinische Presse*, July 31, 1887.

**SULPHUROUS ACID AND LIQUID VASELINE, FOR PHTHISIS.**—**VILLI** exhibited at a recent meeting of the Therapeutic Society of Paris a solution which he had made for Dujardin-Beaumetz, of sulphurous acid in vaseline; the strength of the solution varied with the temperature from 1 in 100 to 2 in 100 parts. It was given hypodermatically in the gluteal region, as deeply as possible, in doses of 75 minims daily. General improvement in the symptoms and general condition of the patient was the result.—*Revue Générale de Clinique et de Thérapeutique*, August 4, 1887.

**CONVALLARIN AND CONVALLAMARIN, GLUCOSIDES OF MAY-LILY.**—**NATHANSON**, a Russian physician, has investigated these substances, with the following results: The first step made by Dr. Nathanson was to have the commercial glucosides analyzed; a second, to undertake a series of therapeutic experiments at Professor Koshlakoff's clinic. The first preparation of convallamarin obtained by him from Merck (in 1885) proved to be a mixture of that glucoside with convallarin and some products of decomposition of both, as an analysis by Professor A. A. Loesch had established. The explanation of discrepancies between different observers was then pretty near. Of course, no experiments were

made with that preparation, and the purest glucosides were obtained from Merck to be given in four cases of disturbed compensation (in a patient, aged fifteen, with aortic regurgitation and relative mitral insufficiency; in two patients, aged fifty-seven and forty, with aortic regurgitation alone; and in a patient, aged forty-eight, with mitral regurgitation and stenosis). The results were these.

1. Convallarin (given in the dose of from  $\frac{1}{10}$ th to  $\frac{1}{8}$ th grains three or four times daily for three to eight successive days) produced only nausea, diarrhœa, and gastric pain. The pulse, breathing, daily amount of urine, and dropsy either remained unchanged or showed unfavorable alterations.

2. Convallamarin was administered in the daily (gradually increasing) dose varying from one-half to five grains for eleven to seventeen successive days. In one of the patients, to whom digitalis, scilla, caffeine, and adonis had been previously given and failed, convallamarin also remained, on the whole, inactive, the improvement consisting only in a slight decrease of dyspnoea and palpitation after exercise. But in the remaining three patients a rapid and striking improvement ensued; the pulse became slower and more regular, the amount of urine augmented, dropsy decreased, and all other signs of disturbed cardiac compensation gradually and steadily disappeared.

3. Of accessory effects, only slight nausea, salivation, and giddiness were observed in one of the patients when the daily dose had been increased to  $4\frac{1}{2}$  grains; in another, slight nausea and vomiting made their appearance when the daily dose had been raised to  $5\frac{1}{4}$  and 6 grains.

4. No cumulative action was ever observed. The general conclusion of Dr. Nathanson is to the effect that convallarin possesses but a purgative action, while convallamarin represents a useful cardiac drug endowed with the power of reëstablishing disturbed compensation, and free from any unpleasant accessory effects. Selection of an absolutely pure preparation is a matter of paramount importance.—*London Medical Record*, July 15, 1887.

**AN INCOMPATIBLE PRESCRIPTION.**—**POWELL** found the following incompatible, from the formation of a heavy double chloride of quinia and mercury, which was precipitated.

Tinc. ferri perchlor. . . . . 3vj.  
Quin. disulph. . . . . gr. xlviiiij.  
Acid. hydrochlor. dil. . . . . q. s.  
Liq. hydrarg. perchlor. . . . .  $\frac{3}{4}$ iv.  
Aq. dest. . . . . ad  $\frac{3}{4}$ xij.

—*American Journal of Pharmacy*, August, 1887.

**THE MICROBE OF WOLF RABIES.**—In a preliminary note in the *Vratch*, No. 21, 1887, p. 415, **DRS. JULIUS MOTTE** and **N. PROTOPOPOFF**, of Professor S. D. Kostüürin's laboratory, in Kharkov, state that while studying wolf rabies they have met with a microorganism which seems to be closely connected with the rabic virus in wolves. The following is an outline of the experiments. A young wolf was inoculated by hypodermatic injection of an emulsion of the brain of a dog which had died from spontaneous rabies of the furious

type. Twelve days and four hours later the wolf developed symptoms of paralytic rabies, which ended fatally in about forty hours. Half an hour after the animal's death, an emulsion of the wolf's brain was introduced beneath the dura mater of a rabbit by trephining. The rabbit died in three days; an emulsion of its brain was inoculated in a second rabbit, from that to a third, and so on. A fifth rabbit, and a sixth inoculated from the fifth, died about twelve hours after the operation, with all the symptoms of paralytic rabies. On the *post-mortem* examination of the sixth rabbit, a considerable quantity of opaque fluid was found between the dura and the pia, and in the subarachnoid spaces. This fluid contained, besides a few leucocytes, an enormous number of extremely minute, short, and very motile bacilli, of a very special kind; in fact, the fluid represented a natural "pure culture" of the micro-organism. An inoculation with brain and spinal cord from that rabbit invariably produced paralytic rabies in other rabbits, death always ensuing in about twelve hours. On *post-mortem* examination, the same microbes were found in all cases. The animals' blood also contained similar bacilli, but in far smaller numbers. A rabbit inoculated by trephining with the blood died in twenty-nine hours. Having prepared a pure culture in meat broth, Drs. Motte and Protopopoff inoculated it either by trephining or by hypodermatic injection. In the former case, all the animals (four rabbits) died from paralytic rabies in twelve hours; in the latter, in from two to six days. The same microorganisms were detected in a young rabbit which had been inoculated by trephining with an emulsion of the brain of another wolf, which had died of spontaneous rabies. The authors promise to publish at an early date the results of their inquiry into the morphological and biological features of the microbe which they have discovered.—*British Medical Journal*, July 23, 1887.

**TERPINE IN PILL FORM.**—RABOW gives the following formula:

R—Terpini hydrat. . . . . gr. 45.  
 Sacc. alb.  
 Mucilag. gum. Arab. . . . . āā q. s.  
 ut f. pil. 30 in num.

Sig.—One pill three times daily.—*Therapeutische Monatshefte*, August, 1887.

**WOUNDS INFLICTED BY LIONS.**—At a recent meeting of the Paris Surgical Society a report from M. JEANNEL, of Toulouse, was read, narrating an interesting case of an animal tamer, aged thirty, whose arm was severely bitten to the shoulder by a lion. The wounds were lacerated; the humerus was laid bare; the limb had been amputated at the elbow-joint by the lion. The accident occurred at 9 P.M.; there was no excessive shock or prostration, and the surgeon postponed active interference until morning. On the following day well-marked emphysema and gangrene were present; temperature 99°; the general condition of the patient bad. Amputation at the shoulder-joint, after preliminary ligation of the subclavian and scapular vessels, was made at once. There was slight hemorrhage; patient died of profound septicæmia in a few hours.

M. POLAILLON had a similar case, two years previous, of lacerated-contused wound, with multiple comminuted

fracture of the forearm from a lion's bite. He amputated immediately at the shoulder-joint, but the patient died of acute sepsis. The origin of septic infection in these cases was thought to be not only the contusion of the tissues, but contagion from partly decomposed meat which the lion was eating. Amputation should be made promptly.—*Revue Générale de Clinique et de Thérapeutique*, August 4, 1887.

**PEAT MOSS AS A DEODORIZER.**—DR. D. M. USPENSKI, in a preliminary note in the *Vratch*, describes a number of bacteriological and other observations he has made on a kind of peat moss belonging to the sphagni, which is indigenous in many parts of Russia and Siberia, and which is used with considerable success in the form of coarse powder for disinfecting cesspools and privies in Warsaw, Riga, and other towns. It is found that about four ounces sprinkled over an ordinary stool are sufficient to deodorize and dry it, so that the receptacle can be emptied and cleaned at proper intervals without any unpleasantness arising. This substance seems to have a wonderful power of absorbing moisture, for it was found by experiment that a pound of it which already contained 25 per cent. of water was capable of absorbing no less than seven pounds and a half more water. When added to fecal matter in the proportion of 10 per cent. by weight, it changes it into an almost dry mass of an earthy appearance, devoid of smell and easy to remove. A hundred pounds of the powdered moss will absorb 1438 litres of ammonia. The dry mass obtained by the action of the moss on feces, on being analyzed by Mr. Miltser, was found to contain from 2.38 to 2.66 per cent. of nitrogen, and from 0.96 to 1.15 per cent. of phosphoric acid, and, of course, formed a very valuable manure. The powder as received contained 23.9 per cent. of water and 5.38 per cent. of ash, and without any preliminary drying they absorbed fourteen times their own weight of water. Bacteriological experiments proved that the moss has a great capacity for diminishing microorganisms of various kinds. If this substance can be easily and cheaply obtained, it would appear to offer advantages over the dry earth we are accustomed to use, and in large towns would doubtless prove very valuable.—*Lancet*, September 10, 1887.

**RESORCINE, EXTERNALLY.**—WYSS recommends the following for *eczema*:

Resorcin . . . . . 3i.  
 Glycerine . . . . . 3j.

And also,

Resorcin . . . . . gr. 15 to 30.  
 Vaseline . . . . . 3j.

UNNA advises a five per cent. pomade for *eczema*, *variola*, and *scarlatina*.

For *pityriasis versicolor* IHLE has found useful:

Resorcin . . . . . 32½.  
 Vaseline . . . . . 312½.  
 Rice powder,  
 Oxide of zinc . . . . . āā 36¼.

In *erysipelas* resorcin may be given hypodermatically in five per cent. solution, or externally in seventy per cent. ointment.—*Revue Générale de Clinique et de Thérapeutique*, September 1, 1887.

# THE MEDICAL NEWS.

A WEEKLY JOURNAL  
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's Address, No. 1004 Walnut St., Philadelphia.

SUBSCRIPTION PRICE, INCLUDING POSTAGE,  
PER ANNUM, IN ADVANCE, . . . . . \$5.00.  
SINGLE COPIES, . . . . . 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in registered letters.

Address, LEA BROTHERS & CO.,  
Nos. 706 & 708 Sansom Street,  
PHILADELPHIA.

SATURDAY, OCTOBER 1, 1887.

## CHOLERA AT THE NEW YORK QUARANTINE.

THE arrival at the Port of New York of the steamship "Alesia" of the Fabre line, from Naples *via* Marseilles, with cases of cholera on board, is a warning which is not likely to be overlooked or neglected. The danger from this particular importation of the disease is probably extremely small, but it has been recognized in time, and the quarantine establishment of New York is probably better fitted than any other to deal with the emergency. The passengers have been transferred to the buildings on Hoffman and Swinburne Islands, the well being separated from the sick, and they will there be kept under observation for a reasonable time. Several cases have occurred among those who were apparently well when landed, showing that the infection was pretty thoroughly disseminated among them, and so long as fresh cases continue to occur, so long it will be necessary to keep up the isolation.

The ship itself and the baggage are probably more dangerous than the passengers as sources of infection, but they are easier to deal with, and it may be considered as certain that they will be completely and effectually disinfected. Taking all these circumstances into consideration in connection with the lateness of the season it is very improbable that there will be any spread from this particular importation.

The significance of the presence of these cases in New York harbor is, and upon this too much stress can hardly be laid, that the specific cause of cholera exists in some of the Mediterranean ports, and probably also in the interior in their vicinity, although there may be few or no signs of its presence, in a form which is capable of becoming viru-

lently active under favorable circumstances, and that therefore all ships and immigrants from these ports are more or less dangerous. This danger with regard to any particular ship on which the disease has not appeared when it arrives on our coast is very small, so small that, in view of the many other channels through which cholera might now come to us, it would not be worth while to enforce special precautions, but taking into consideration all the sources of importation of cholera to which we are now exposed, the persistence of the disease in Europe and its appearance in South America, the danger of its introduction into this country within the next nine months is very considerable.

We have had a long forewarning, and during the past three years much has been done to put our cities, towns, and villages into good sanitary condition, but much remains yet to be done, and it is to be hoped that the infected "Alesia" will prove to be a powerful stimulus to municipal authorities, water boards, and health officials to carry out the well-known measures for securing cleanliness and pure water, which are the only certain safeguards against this form of epidemic disease.

## HYPERSECRETION OF GASTRIC JUICE.

THE functional value of a glandular organ and that of its secretion may be considered identical. An apparent exception is furnished by the stomach, an organ to which muscular movement is of decided importance in the performance of its function. There are numerous facts, however, which prove that a normal gastric fluid is not secreted by a stomach of which the walls are atonic from any cause. A digestive secretion, to be normal, must not fall below or exceed a certain amount; it must have a definite composition; and, finally, it must be discharged through its ducts or follicles, intermittently or remittingly. Being intended to act upon the food, its presence in the stomach when food is absent is out of place, uncalled for, and constitutes a morbid condition.

Nearly all functional disorders of the stomach are classed under the head of dyspepsia, and their treatment is based upon the theory of a deficient or altered gastric secretion. Hence, the constant administration of pepsin, pancreatin, acids, and alkalies. It is only quite recently that certain well-marked stomach disorders have been proved to be due to an excessive and unintermittent secretion of gastric juice. This condition is by no means a pathological curiosity. First described by Reichmann, in 1882, cases have since been reported by Sahli, Schütz, van den Velden, and especially by Riegel, who, in the course of the last eighteen months, has seen twenty nine cases.

The symptoms of hypersecretion of gastric juice,



or, to be more accurate, of unintermittent secretion, depend upon the duration of the morbid state, and on the hygienic environment of the patient. Sometimes the emaciation, feebleness, and anæmia are so extreme as to excite the suspicion of carcinoma, and with these symptoms there is apt to be epigastric tenderness and dilatation of the stomach. On the other hand, cases of old standing may present little evidence of impaired nutrition. Increased thirst, heart-burn, nocturnal attacks of pain in the epigastrium, acid eructations and vomiting, and dilatation of the stomach, constitute a set of highly diagnostic symptoms. The only certain means of diagnosis, however, is afforded by an examination of the contents of the stomach. If these be removed from five to six hours after a frugal meal, the following indications will be obtained: 1. The amount of material in the stomach is much greater than is usually found at such a late period of digestion. 2. The albuminoids are completely digested. 3. The amylaceous substances are undigested. 4. The fluid is more than usually acid. Riegel (*Deutsche med. Wochenschrift*, July 21, 1887) has found the percentage of hydrochloric acid three times greater than normal.

As above stated, these are *indications*. Absolute proof of the condition is furnished by the withdrawal of the stomach contents when the viscus is empty of food. The stomach is thoroughly washed out in the evening, and the patient fasts until the following morning, when the sound is again introduced. If the condition under consideration is present, from 8 ounces to a pint of a colorless or greenish, turbid, slightly viscid fluid will be withdrawn. It is strongly acid, gives all the reactions of hydrochloric acid, contains no organic acids, and digests albumin rapidly. In short, it is gastric juice.

Hypersecretion must not be confounded with hyperacidity. The latter consists in a too liberal response to a physiological summons, while the former is gratuitous. There are, however, transitional forms between the conditions, for the secretion which is excessive in response to a physiological will, in time, be produced in the absence of any stimulus.

There is an undoubted relation between hyperacidity and hypersecretion and gastric ulcer. In more than one-third of Riegel's cases decided symptoms of ulcer, including hæmatemesis, had been present at one time or another. This observer holds that the excessive secretion of hydrochloric acid is not, as Jaworski believes, a direct, but merely a predisposing cause of ulcer. The ordinary dangers of a trauma of the gastric mucosa are greatly increased under such circumstances. A simple erosion in a stomach that is never empty of gastric juice will

probably proceed to the formation of an extensive ulcer.

The causes of hyperacidity and hypersecretion are not, as yet, understood; but that the condition is of neurotic origin is proved by its ephemeral occurrence in neuropathic individuals in general, and particularly during the *crises gastriques* of those affected with tabes.

The chief features of the treatment are the methodical washing out of the stomach, preferably just before the principal meal, and the employment of alkalies and alkaline mineral waters. In no other affection is lavage of the stomach more beneficial. The diet should consist almost entirely of albuminoids, and the thirst, often excessive, may be assuaged by bits of ice, for it is an important point that the dilatation of the stomach, so frequently present, should not be maintained by a too free ingestion of fluid. So important is this considered by Riegel that he advises the use of small doses of opium to obtund an overpowering sense of thirst.

#### THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

THE new fire-proof building for the Army Medical Museum is now approaching completion, and a large part of the Library has been transferred to it, and is thus safe from fire, although the books are not accessible, being piled on the floor of the Library Hall, awaiting the completion of the iron book stacks in which they are to be placed. The original contract called for the completion of this building in April last, but the builders have not complied with their agreement, and it will probably not be completed until November next.

In July last the Secretary of War ordered that the rented buildings occupied by about 150 clerks in the pension division of the Surgeon-General's Office should be vacated by September 1st, as Congress had made no provision for rent for these buildings for another year, and that room must be made for these clerks in the old Museum building, which belongs to the Government. This necessitated the vacating a large part of the Library hall and of the rooms connected with it, and the packing into the smallest possible floor-space of the books, which could not be moved. The result of the peremptory order of the Secretary of War is that the Library has been practically almost inaccessible for about six weeks, and it will remain so until the middle of October. We have heard some complaints about this, and especially that it should have occurred during the meeting of the International Congress, but, as the result of careful investigation, we are satisfied that it was practically unavoidable, and that the Medical Department has been in no way to blame for the delay and confusion.

The insinuations which have been made that the

closure of the Library during the Congress was unnecessary, and that it was intended as a slight to that body, are wholly without foundation, for we know that Dr. Billings used every effort to hasten the work, and that no one regrets more than he does the fact that the Library could not be accessible to visitors at that time. Fortunately it was found possible to leave the Museum practically undisturbed, and it received a large number of interested visitors during the week of the meeting of the Congress.

It is very satisfactory to know that the treasures of the Library and Museum will soon be not only out of the dangerous position in which they have heretofore been placed, but also in light and airy rooms, where they can be properly displayed and classified, and thus be most interesting and useful.

#### THE ETIOLOGY OF ACUTE ENDOCARDITIS.

WE have already referred to the observations of Orth, Philipowicz, Prudden, and others, which demonstrate the constant association of microorganisms with the lesions of ulcerative endocarditis, and the possibility of the artificial production of the disease in animals with or without previous laceration of the valves. A number of forms have been cultivated, chiefly cocci, but in one or two cases small bacilli, and in two instances in which the endocarditis complicated pneumonia, the same kind of organisms were found in the lung and on the heart-valves.

WEICHELBAUM has recently studied the question with great care, and has given his results in the *Centralblatt für Bacteriologie und Parasitenkunde*, Bd. ii. No. 8. Cultures were made from fourteen cases of ulcerative endocarditis, as soon as possible after death, in some instances within an hour or two. In twelve, microbes were present; in six cases the streptococcus pyogenes; in three, the pneumonia diplococcus; and in three, less common, but equally distinctive, forms. In the two negative cases the vegetations were old and calcified. The experimental work confirms the results of previous observers regarding the feasibility of inducing artificial endocarditis.

A much debated point, upon which we need further observations, is whether in the ordinary verrucose endocarditis microorganisms are present in the vegetations. Klebs, Koster, and Ziegler regard this form as also bacteritic, but Osler, Orth, and others have failed to demonstrate their presence. Recently, E. FRÄNKEL and SÄNGER, in *Virchow's Archiv*, Bd. 108, have found organisms in nine out of fourteen cases, and have shown that the colonies may be so scanty that the culture method gives much more definite results than can be obtained by section and staining. In two instances, however, Weichselbaum could not find them, and suggests, in ex-

planation, that the vegetation may have been old and the organisms dead. More extended observations are required before we can attribute every case of warty endocarditis to the irritation of microbes on the valves; meanwhile the studies which have been made bring us nearer to the solution of the important problem of the origin of these secondary cardiac inflammations, so often disastrous in themselves, and more frequently injurious in initiating a progressive and damaging lesion.

THE eighth volume of the *Index Catalogue* of the Library of the Surgeon-General's Office, U. S. Army, has just been issued, and extends from *Ligier* to *Medicine (Naval)*. It covers 1078 pages, and includes 13,405 author titles and 36,816 subject titles. As examples of its richness in bibliography, we find that the references to "lithotomy" and "lithotripsy" cover 85 columns, to the "liver" 142 columns, to "malaria" 15 columns, and to "measles" 26 columns. This volume, like its predecessors, has been compiled under the supervision of Surgeon John S. Billings, and, as has been well said by a contemporary, "if Dr. Billings had done nothing else for his profession, the talent and energy expended in this work would alone entitle him to the earnest gratitude of every lover of medical science and literature."

### SOCIETY PROCEEDINGS.

#### NINTH INTERNATIONAL MEDICAL CONGRESS.

Held at Washington, September 5-10, 1887.

(Specially reported for THE MEDICAL NEWS.)

#### SECTIONS.

##### Obstetrics.

THURSDAY, SEPTEMBER 8TH.

DR. EMILE POUSSIÉ, of Paris, read a paper on

#### TYPHOID FEVER OCCURRING DURING THE PUERPERAL STATE, AND TERMINATING IN RECOVERY.

The points of interest were: The development of the typhoid fever during the puerperal state; the anomalous début of the disease, resembling a commencing peritonitis; the form of the disease,—the ordinary one, of slight gravity although developed during the puerperium; and the fact that the sick woman not only recovered, but no sequelæ appeared.

PROFESSOR SIMPSON, of Edinburgh, thought it fortunate that Dr. Poussié had brought forward his case in connection with the subject of puerperal fever. It was important to observe that there might be many varieties of fever occurring in puerperal women. Dr. Poussié's case illustrated the possibility of the occurrence of typhoid fever during the puerperium, and such cases might be met with in all ranks of the community, wherever pregnant and lying-in women occupied bedrooms open to the invasion of sewer-gases. But sometimes

women recently confined have been said to die of puerperal fever, who have been the subjects of one of the other zymotic fevers. The danger of scarlatina in puerperæ was well known, and he had seen a parturient woman die three days after labor of measles.

The paper read, dealt, however, more directly with the febrile condition of the puerpera, resulting from the introduction of septic matter into the system, and resembling more or less the febrile condition set up in surgical patients after wounds and injuries. What might be the nature of the poison? How was it introduced into the system—whether only through the genital tract at the hands of the attendants, or also through the atmosphere? How were its ravages to be met? These were the questions now open for discussion in this Section.

DR. GRAILY HEWITT, of London, believed that defective contractions of the uterus are largely responsible for the occurrence of puerperal fever in private practice. This defective contraction is due largely to weakness. Therefore, he urged attention to hygiene and good feeding during pregnancy, and extreme care in securing firm retraction of the uterus after labor and during the early hours of the puerperium.

With reference to antiseptic precautions, he regarded the cavum uteri as the starting point of general infection in the majority of cases. For purposes of intrauterine irrigation, he recommended Berdin's celluloid, double catheter, exhibited at the Copenhagen Congress.

As regards treatment, he relied upon food and stimulation, relating the history of a case of the worst kind—a woman in a lying-in hospital hourly expected to die—patient recovering after the exhibition of a bottle and one-half of brandy within twenty-four hours.

DR. W. W. JAGGARD, of Chicago, expressed his belief in the Semmelweis doctrine of puerperal fever. He desired to enter as vigorous a protest as possible against the irrational and pernicious use of intrauterine irrigation proposed by Dr. More Madden. When the indication for intrauterine irrigation after labor was perfectly clear and distinct—as after the introduction of the hand into the cavum uteri in version—the uterine cavity should be washed out with a two per cent. solution of carbolic acid in sterilized warm or hot water, by means of Carl Braun's hard rubber tube or Chrobak's modification of Bozemann's double catheter. This secured relative disinfection of the endometrium.

Then to secure continuous disinfection it was necessary to introduce a bacillus containing sixty to seventy-five grains of powdered iodoform, Mosetig-Moorhof's formula. The cavity of the uterus was now disinfected and permanently sterilized, and ought to be *let severely alone*. It was seldom necessary to repeat this process.

To secure retraction of the uterus it was good practice to apply gentle massage to the fundus uteri twice daily during the first forty-eight hours of the puerperium, as was customary in Carl Braun's wards in Vienna. There was little danger of interfering with puerperal thrombosis by this means if not continued longer than forty-eight hours. He agreed with Dr. Graily Hewitt, Kucher, and others that a well-contracted uterus was well nigh proof against infection. He had seen used and had himself used iodoform on a colossal scale since attention was called to the drug by Mosetig-Moorhof in 1881, and had never seen a case of iodoform toxæmia arise when the drug was employed as here described.

DR. JAMES C. CAMERON, of Montreal, said a satisfactory treatment for puerperal fever will never be reached until the profession learns to recognize that, in the immense majority of cases, puerperal fever is puerperal septicæmia. Robert Barnes, in a recent review of Parvin's *Obstetrics* in the *British Gynecological Journal*, says that this view is narrow, because it does not take into account the peculiar condition of the puerperal woman's blood. He then reiterates his three-fold theory of endosepsis, autosepsis, and exosepsis. Such teaching does great harm. Endosepsis is a myth, and if general practitioners are taught that puerperal fever can arise of itself, their practice can never be satisfactory. According to the germ theorists, septicæmia postulates the existence of two factors, the soil and the germ; hence rational antiseptic treatment should run on two lines, the sterilizing of the soil and the exclusion or destruction of the germs. The exclusion of germs after labor is best obtained by the dry method of dressing—the insufflation of iodoform into the vaginal outlet and the constant closure of the vulva with a dry antiseptic pad, sterilizing the air entering the genital canal. The pathologist sterilizes his culture tube, plugs it with cotton-wool, and thus keeps his culture free from the contact of atmospheric putrefaction germs; so the obstetrician plugs his obstetrical culture tube and keeps it free from atmospheric contamination.

With regard to the use of the uterine douche and curette, he had obtained brilliant results in suitable cases, but he strongly emphasized the warning uttered by Dr. Jaggard, that great harm is done by continued and injudicious douching. The object of local treatment is to remove local sources of infection; when this is once thoroughly done, a bacillus of iodoform is introduced and the dry dressing applied, the parturient canal is practically aseptic, and only harm will result from further local treatment.

When general systemic infection has occurred, a struggle between the white corpuscles and the microbes ensues; the issue depends upon the relative strength of the opposing forces, the army of the defender and that of the invader. The rational treatment of this general condition seems to be that applicable to all rapidly prostrating general diseases, such as diphtheria—large quantities of nutriment and stimulants, with iron and quinine, when required, will give more satisfactory results than any other. Success in the treatment of puerperal septicæmia will depend upon the skill of the physician in recognizing when to use local, and when to use general treatment. The patient must be treated and not the disease; there is no such thing as a specific treatment for puerperal septicæmia.

DR. J. A. DOLÉRIIS, of Paris, after referring in flattering terms to the papers just read, said that he wished to emphasize the precepts of Dr. Earle's paper. He had practised curettement of the puerperal uterus as late as the fourteenth day, with excellent results.

PROF. RODNEY GLISAN, of Portland, Oregon, read a paper on

CONSERVATIVE OBSTETRICS; WITH SPECIAL REFERENCE TO THE REMOVAL OF THE SECUNDINÆ AFTER ABORTION, AND TO THE TREATMENT OF THE THIRD STAGE OF LABOR.

He thinks that the expectant method of treating re-



tained secundines after abortion, and of the placenta in labor, is unsafe in private practice, especially when the doctor resides at a distance from his patient; yet it may succeed fairly well in hospitals under the constant vigilance of experienced practitioners. He believes that the heroic method of always removing the secundines in abortion immediately after the expulsion of the embryo, and of the placenta immediately after the birth of the child, is in private practice safer than the do-nothing mode because there is less danger of hemorrhage and septicæmia, yet he prefers a conservative method to either of the others.

In an active practice of thirty-nine years Prof. Glisan has never found any instrument for the removal of the secundines after abortion so safe, useful, and trustworthy, as the finger. He adopts the bimanual method of abdominal depression of the uterus with one hand to within easy reach of the index finger of the other; and then inserting the latter finger far enough into the womb to seize the secundines and remove them. In cases of excessive sensibility, or great abdominal rigidity, or of undilatability of the cervix, he administers an anæsthetic—either chloroform, or a combination of it and ether—except when the patient is anæmic from hemorrhage, when ether alone is used.

In the removal of the placenta during labor he adopts a modified or conservative Credé method. That is, he advises pressure to be made on the fundus of the womb in somewhat the manner recommended by Credé, and with his precaution of using force only during the acme of uterine contractions, but he would use less pressure than is advised by Credé, and aid it by moderate traction on the cord, to which Credé is strongly opposed.

Dr. Glisan does not believe that moderate traction on the cord, when the womb is in a state of good contraction, and is properly grasped by one hand externally, is attended by the least risk of inversion of the uterus, or of increasing the hemorrhage by a suction-like process of the placenta on the cavity of the womb.

DR. GRAILY HEWITT, of London, said that he believed it was most important in the treatment of abortion to remove the secundines, but that he had observed that early in the abortion the internal os was often very narrow. In such cases a little time should be allowed before attempting manual extraction. For removal, the finger was best, coupled with depression of the uterus from the outside.

DR. JOHN BARTLETT, of Chicago, presented

#### A STUDY OF DEVENTER'S METHOD OF DELIVERING THE AFTER-COMING HEAD.

He pointed out evidences in the writings of Deventer that he practised a method of delivering the after-coming head, which he regarded as easier, and safer for mother and child, than other methods. This method, as described and practised by Smellie, shows it to consist of a reversal of the so-called Prague method, in that the body of the child is carried backward toward the perineum, with a view of turning the occiput out from under the pubes; the anterior surface of the neck resting on the perineum.

PROFESSOR SIMPSON, of Edinburgh, said he regarded the great Dutch obstetrician as one of the most reliable obstetric writers, whose statements as to his success in practice he accepted without reserve. It is an inter-

esting illustration of the importance of the relative study of the works of contemporary writers that it was from the works of Smellie that Dr. Bartlett has been able to unearth Deventer's secret.

DR. A. F. A. KING, of Washington, D. C., said that the method of Deventer had been overlooked by modern writers. The method of traction downward and backward toward the perineum is generally recommended when the occiput has rotated posteriorly and the chin pole is below the pubes, but it is generally advised to deliver the arms first. He would take pleasure in trying Deventer's method, and would recommend it as a legitimate procedure.

#### Diseases of Children.

THURSDAY SEPTEMBER 8TH.

DR. ALBERT R. LEEDS, of Hoboken, N. J., read a paper on

#### THE SCIENTIFIC BASIS OF THE NUTRITION OF INFANTS.

He said that he desired to engage the attention of the Congress upon this subject, both on account of its intrinsic vital importance, and because he believed that the existence of a scientific basis for the nutrition of infants has been satisfactorily established. This paramount importance is shown by the fate of infants under present conditions of nutrition: out of every 100 infants fed on mother's milk, statistics show that about 8 die at the end of the first year; out of 100 wet-nursed, 18 die; and out of 100 fed on "infant foods," 51, or more than one-half, die by the end of the first year.

In an investigation made in 1883 upon all infant foods then in use (*Transactions of the College of Physicians of Philadelphia*, 1883), he found that all these foods, whatever might be their name or pretensions, belonged to one or the other of two great classes; they were either flour, plain, baked, or cooked, or they were sugar admixed with cereals in some form, the so-called Liebig's foods. The cause of the great mortality among infants using these foods is obvious—they are physiologically as unsuited to the nutrition of a human infant as grass and hay are to the nutrition of a calf deprived of cow's milk.

All the varieties of "infant foods" are intended to prevent the formation of hard clots by keeping asunder the particles of casein by means of starch, dextrine, sugar, etc.

Four years ago he proposed that we should abandon artificial foods altogether. He prepared for infants deprived of mother's milk, milk to which he gave the name of "humanized," since it was, as far as could be ascertained, the same in composition and properties as mother's milk. As a foundation for this work he made analyses of eighty samples of mother's milk. They varied greatly in composition with the age, temperament, physical health, etc., of the mother. But when their average composition came to be compared with that of cow's milk, certain facts stood out very prominently. They were: first, that the amounts of sugar and fat in mother's were much greater than in cow's milk; second, that the casein was much less; third, that the nature and proportions of the ash were not the same. But the most important difference was in the

different digestibility of the caseine of the cow's milk. At the time that he was engaged upon this research, the treatment of cow's milk with artificially prepared pancreatic extract in order to convert the caseine into a soluble peptone, was being largely resorted to. He was aware of this fact, and of the experiments of Dr. Roberts, of England, upon this subject. But at that time, no one, so far as he is aware, had studied the relative character of such peptonized caseine and the caseine of mother's milk. On making such an investigation, he found that in properties and tests the two bodies behaved in precisely the same manner. Finding that the distinguished pharmaceutical chemist, Mr. B. T. Fairchild, could prepare a tryptic ferment which could be relied upon with certainty to effect the desired change in cow's milk, he made this tryptic ferment the basis of the so-called peptogenic powder. By diluting cow's milk with the requisite quantity of water, its percentage of caseine is lowered to the same amount as in mother's milk. By the addition of cream, the percentage of fat is adjusted, and the heating of the milk for five minutes with the peptogenic mixture does the remainder. The "humanized milk" thus prepared has already been the sole nutrition of many thousand infants, especially children of weak and disordered digestion, and he believes it to be a successful solution of the problem of infant nutrition.

#### General Medicine.

FRIDAY, SEPTEMBER 9TH.

SIR JAMES GRANT, of Canada, then made some remarks on

#### THE TREATMENT AND ETIOLOGY OF DIPHTHERIA.

He regards it as a blood disease, and therefore always directs that the patient be given each day a warm bath with mustard in it. The irritation of the skin draws away the blood from the throat where it would enter, and thus relief is obtained. He has noticed in Canada that in the winters in which a heavy fall of snow occurs the disease is rare, as it is also in the following summer; but if the snow-fall is light and the winter damp, then the disease is rife both in the winter and summer.

He has also noticed the fact that convalescents from diphtheria do better in hilly regions than at the seashore, and in sending such persons away to recuperate he always insists on the high lands.

The Section passed a vote of thanks to Sir James Grant for his interesting remarks.

DR. A. B. PALMER, of Michigan, had used pilocarpine for the same purpose for which Dr. Grant had used baths.

DR. JOHN A. OSTERLONY, of Louisville, read the report of the Committee which was appointed to investigate the statements made by Dr. Joseph Kaposi, with reference to the

#### ANTI-VACCINATION STATISTICS

of Keller in Austria. The most astonishing statement in the report of Keller was that in children, under one year of age, vaccination produced no result at all, as the mortality of unvaccinated was 13.25 per cent., while that of the vaccinated was 13.50 per cent. When Kaposi undertook the review of Keller's statistics, he had no idea that they had been falsified; but before he had

finished, he encountered some very surprising results. Summoning Dr. Keller to Vienna to testify in regard to his statistics, he found that Keller had died shortly before, and that no statistical tables had been found among his effects. The correctness of this statement has been verified. Kaposi then addressed himself to the railroad surgeons and asked them for duplicates of their reports to Keller. Of the nineteen surgeons of the company who were living, nine responded by furnishing the desired duplicates. 549 cases were thus found. The duty of the surgeons of the road was to report, during an epidemic of smallpox, whether the patients had been vaccinated and whether they had been re-vaccinated. This was to be done with the greatest care, as to age, etc.; in children under one year, for instance, the exact age in months was to be given. Notwithstanding the care with which these reports had been prepared and transmitted to Keller, his report contains no reference to the number of patients who had been revaccinated.

As a result of their investigations, the Committee arrived at the conclusion that Keller had altered the statistics of his physicians, which he should have carefully compiled. He had in all instances changed the figures in such a way as to raise the number of deaths of vaccinated and lower the number of deaths of the unvaccinated.

DR. A. B. ARNOLD, Chairman of the Section, then made some remarks on

#### DILATED AND FATTY HEART.

The etiology, pathology, symptomatology, diagnosis, and treatment were considered in their order. Some cases are congenital, where young persons have been found to have a fatty degenerated heart, much dilated. Insufficiency of one or other of the valvular orifices of the organ is a much more frequent cause, being most frequent in persons past the middle period of life. Fatty degeneration may follow insufficiency of either of the orifices. Digitalis is the remedy most relied upon in the treatment of this condition. Strychnia, too, is a most excellent remedy; but in order to obtain its full effects, it must be given in much larger doses than are usually administered. Beginning with the usual dose, one-sixtieth of a grain, it should be gradually increased until probably a one-sixth grain dose is reached—almost until physiological effects can be noticed.

DR. LYNCH, of Baltimore, cautioned against permitting too free exercise by those afflicted with fatty degeneration of the heart. With regard to the use of digitalis, he said that we can with it keep off the fatal termination of the disease for a time, but, finally, a time comes when it loses its effect and nothing will longer sustain the heart. It is also advisable in these cases to diminish to the minimum the quantity of fluids taken, in order to render the proportion of red blood-corpuscles relatively greater than otherwise.

DR. GEORGE E. FELL, of Buffalo, N. Y., then read a paper on

#### FORCED RESPIRATION IN OPIUM POISONING.

Artificial respiration has a wider range of application than might at first be supposed. It has been used in drowning, strangulation, occlusion of the air-passages, poisoning by carbonic acid gas, chloroform, opium, or

its alkaloids, strychnia, woorara, snake bite, in hemorrhage, and even in nervous shock from a blow or fall. Of the methods, a few may be mentioned, as those of Marshall Hall, Sylvester, Howard, and others, which depend for their success upon the movements of the limbs of the body of the patient, supplemented usually by pressure on the part of the physician.

We have further the methods in which tubes and mouth-pieces are used, and the air supplied by means of bellows of various forms.

Then, again, we have the methods used in physiological laboratories, in which the trachea is opened, to supply the air for respiration. The first of this series of methods is that generally used, and may be useful so long as the muscles of respiration maintain their tonicity and the heart has not ceased to beat. The second series, in which mouth-pieces are used, may prove uncertain in action, owing to the difficulty of passing air into the paralyzed larynx with the œsophagus presenting a more direct route to the stomach. The third series presents a positive method, by opening into the trachea.

To the latter method he applied the name of forced respiration, to distinguish it from the ordinary "artificial" respiration. After a considerable review of the best medical works and consultation with the most prominent members of the profession of Buffalo, the essayist had not been able to find a case in which forced respiration had been applied to the human subject under opium poisoning. The value of the method, the essayist thought, would be apparent after the recital of a case.

On Saturday, July 23, 1887, at 12.30 A.M., he was called to attend a patient whom he found in a semicomatose condition. The patient, as he was informed by his wife, had been drinking heavily for a week or more, and in order to secure sleep had taken chloral. Finding this inefficient as taken, he had resorted to a dose of morphine. The quantity he had taken was equal to twenty grains. The symptoms produced were those ordinarily following a large dose of the drug. Dr. Fell at once administered an emetic, followed it by a cathartic, and commenced giving him drop-doses of the fluid extract of belladonna at frequent intervals, until a solution of atropia could be obtained. This he then administered hypodermatically in doses of one-sixtieth of a grain. In order to keep him awake, the patient was walked around. This was continued until finally his strength failed, and he sank to the floor exhausted. His breathing now became more stertorous than before, and signs of immediate dissolution were present. Thinking he could do no more the essayist abandoned his efforts at about 4 A.M. Four hours later, he was called by a physician who had been subsequently summoned to the case. He found the patient breathing with little more ease than when he left, but exceedingly weak. Sylvester's method of artificial respiration was resorted to, and continued at frequent intervals for an hour. The patient's strength continued to fail. Finding it impossible longer to keep up the patient's respiration, tracheotomy was performed. The steps of the operation were described by the essayist. A heavy tube was inserted, one which had done service upon dogs in the physiological laboratory. The apparatus used in experiments was also employed to produce artificial respiration. In a short time, natural efforts at respiration

commenced. It was soon observed, however, that after the forced respiration had been continued for awhile, the natural efforts were suspended for a time—in other words, that the supply of oxygen provided to the patient in this manner was greater than that required by nature, and the blood became overcharged with oxygen. The large laboratory tube was then removed and an ordinary tracheotomy tube inserted.

He then described a smaller apparatus which he had had prepared for the purpose of producing forced respiration in the human subject, and closed with the statement that the method was not only easy of execution, but one suited to a large number of cases, the only restriction to it being the danger of over-inflation of the lungs.

DR. BRAINARD, of Los Angeles, California, stated that he had used the method of producing artificial respiration by strongly elevating the shoulders, by raising the arms and compressing the chest in order to secure expiration. He had found it efficient in every case, and had not felt the need of any such method as that just described. In some cases the tongue must be held forward in order to prevent its closing the entrance into the trachea.

DR. FELL stated that he had not proposed forced respiration as a method applicable to every case, or as a substitute for artificial respiration. He had used Sylvester's method with success in some cases, and, as stated in the paper, had employed it in the commencement of the case reported, but in cases of opium poisoning, as in this case, a time comes when Sylvester's method will no longer be effective. He did not advocate opening the trachea, itself a serious operation, when the patient can be saved in any other way; but when all other means have failed is the time to resort to forced respiration.

DR. ENRIKIN stated that he did not wish to belittle the operation just reported, but that he had succeeded in several cases in producing artificial respiration by introducing an ordinary rubber tube into the trachea and forcing air through it by means of a bellows.

The CHAIRMAN then expressed in a few words his gratification with the success of the Section, thanking the members who had so kindly contributed to the scientific work done, and declared the assemblage adjourned.

#### Obstetrics.

FRIDAY, SEPTEMBER 9TH.

DR. IRA E. OATMAN, of Sacramento, Cal., read a paper on

#### THE TREATMENT OF PUERPERAL ECLAMPSIA.

He recommended the use of veratrum viride after the convulsions are under control by anæsthetics. Eight drops per os or fifteen per anum should be exhibited until the frequency of the pulse beat is reduced to forty, and nervous and vascular tension is relieved. He believes this drug to have a specific effect. Whiskey must be kept near in case of extreme cardiac depression.

DR. DUNCAN C. MACCALLUM, of Montreal, said that eclampsia should not be treated as an entity, in which the conditions are always the same, but as a disease occurring under widely varying conditions, which confer an individuality on each case. He relied on chloro-



form, morphine, chloral, and the bromides. He had seen sixteen cases; all recovered.

DR. A. F. A. KING, of Washington, said that the normal presentation and position of the fetus *in utero* during pregnancy, before labor begins, is the dorso-anterior position of an oblique presentation. Pressure of the gravid womb upon the aorta, vena cava, and their branches produced renal trouble. He recommended, in the treatment of eclampsia, postural treatment. Place the woman in the knee-elbow position, or the latero-prone position of Sims, and then by manipulation lift the womb out of the pelvic cavity and place it upon an iliac fossa, where it ought to be naturally.

DR. AUST. LAWRENCE, of Bristol, England, expressed surprise that in America all cases of eclampsia apparently recovered. In England, the affection was extremely fatal.

DR. W. W. JAGGARD, of Chicago, said: 1st. Puerperal eclampsia was caused by renal inadequacy, to use an expression of Sir Andrew Clarke's, dependent upon functional or organic disease. 2d. The immediate cause of the convulsion was, probably, vasomotor spasm of the cerebral bloodvessels. 3d. The indication for treatment, *par excellence*, was profound anaesthesia, to relax the spasm. Therefore, chloroform, morphine, chloral, and the bromides were indicated. Joseph Berens and H. C. Wood, of Philadelphia, had demonstrated that veratrum viride produced general vasomotor paralysis and diminution of the general blood pressure. There were, therefore, *a priori*, considerations, in favor of the use of the drug. Niemeyer says, "You bleed the patient into her own veins when you exhibit veratrum viride." 4th. He had read Dr. King's remarkable paper, of which mention had been made. He thought his arguments fallacious, and utterly inconclusive. Certainly, in the present state of our knowledge, it would be supreme folly—worse than folly—to lift up the head out of the pelvic cavity and place it on an iliac fossa, if that were possible. He was of the opinion that the observations, upon which Dr. King based his hypothesis, did not correspond with the objective findings of the immense majority of observers.

DR. E. PAUL SALE, of Aberdeen, Miss., read a paper on

#### THE MANAGEMENT OF PREGNANCY, WITH REFERENCE TO THE PREVENTION OF POST-PARTUM HEMORRHAGE,

in which he recommended viscum flavescent, stylosanthus elatior, aletris farinosa, cimicifuga racemosa, salix nigra, as uterine tonics, in cases predisposed to hemorrhage, the result of atony or the hemorrhagic diathesis.

#### Gynecology.

FRIDAY, SEPTEMBER 9TH.

The session was opened by a discussion of some of the papers of the preceding day.

#### TREATMENT OF THREATENED OR COMMENCING PERITONITIS AFTER LAPAROTOMY BY BRISK PURGATION.

DR. GORDON, of Maine, fully endorsed Dr. Johnson's plan of purging in peritonitis, following laparotomy,

having been strongly influenced in his opinion by the recommendation of Tait. He had also used this plan successfully in the treatment of puerperal fever, salines being the agents used to produce the purgation. He considered that the day for the opium treatment of peritonitis had passed.

#### THE BURIED SUTURE WITH IODOLIZED SILK IN VESICO-VAGINAL FISTULA.

DR. CUSHING, of Boston, remarked that he had no experience with that form of suture material, but frequently found occasion to use the buried suture. In many instances, they served an excellent purpose, especially when some soluble material, such as catgut, was used.

#### THE TREATMENT OF UTERINE CANCER.

DR. A. MARTIN, of Berlin, said that his method of operation, in brief, is as follows: The patient is placed upon the back, the vagina thoroughly disinfected, and the sides of the vagina and the perineum are retracted. The cervix is grasped with a volsella and dragged to the vaginal entrance, at the same time carrying it as high as possible toward the symphysis pubis. The posterior vaginal fornix and peritoneal pouch are then cut through, the peritoneum is drawn down and stitched to the vagina; a ligature is then passed which includes the lower third of the left broad ligament, after this another which includes the upper and middle thirds. The same procedure is next adopted with the right broad ligament. The anterior vaginal fornix is then opened, the bladder carefully separated, and the edges of the peritoneal and vaginal wounds stitched together as they were, posterior to the uterus. The organ is then retroverted, the body of it being brought into the vagina. The lateral attachments are next divided and the peritoneum stitched to the vagina as in the previous cases. A catheter is then passed into the bladder to draw off its contents. During the entire operation the wound is irrigated, no sponges being used. He considers that this operation has now passed its stage of trial in Germany. The best operators insist upon limiting the operation to those cases in which the uterus alone is involved by the disease. The operation is also indicated in certain cases of prolapsus uteri, and occasionally for myomata. It is also called for in sarcomata and adenomata. The prognosis from the operation is favorable if the surrounding tissues are healthy, but if infection has taken place the result will probably be unfavorable.

DR. DIARNY, of Buda Pesth, had had some experience with this operation as Prof. Tauffer's assistant, the latter having had a large series of successful operations. He thought Dr. Jackson's argument in regard to loss of life in years by those who had submitted to hysterectomy and had subsequently succumbed from recurrence of the disease, death having come more quickly, in all probability, than would have been the case had they submitted to no operation whatever, but allowed the disease to take its own course, was a kind of argument which was unwarrantable and quite insusceptible of substantiation. On the other hand, he might also mention the great gain to the patients in relief from pain, exhausting discharges, and offensive presence even if this respite were to last only a few months. He believed

that the operation was fully warranted whenever here was a reasonable possibility of removing all the diseased tissue.

DR. DUDLEY, of Chicago, thought that the status of American operators with respect to the operation would improve with increased experience.

DR. GRAILY HEWITT, of London, considered that humanity owed a debt of gratitude to Martin and his colleagues for their pioneer work in this field.

DR. REEVES JACKSON, in closing, still believed that the facts were against vaginal hysterectomy as a justifiable operation. While according all merit to Dr. Martin and his colleagues for their great skill in operating, and admitting the possibility of even better results in their hands, the operation was not one, however, which could be done with satisfactory results by the average gynecologist.

DR. TRENHOLME, of Montreal, offered a resolution moving the thanks of the foreign delegates to this Congress, to the officers thereof, and the citizens of Washington for their hospitality, and to the Chairmen and Secretaries of the Sections for their untiring labors which had done so much toward accomplishing the success which had attended the sessions of the Sections.

This motion was seconded and carried unanimously.

DR. CALEB R. REED, of Ohio, read a paper on

THE INTRAUTERINE STEM PESSARY AS AN  
EMMENAGOGUE.

This method of treatment had been condemned by Emmet and others, while Thomas, Goodell, Mundé, Reeves Jackson, Winckel, and others approved of it. The plan of the author in dysmenorrhœa or amenorrhœa was to use a tent of slippery elm, and the irritation and dilatation thus produced were often effective in bringing on a flow which answered all the purposes of the menstrual flow, whether occurring at the time which was appropriate in the given case or not. The method had never been accompanied by bad results in the author's experience.

The work of the Section was closed with the reading by title of a number of papers.

AMERICAN GYNECOLOGICAL SOCIETY.

*Twelfth Annual Meeting, held at New York,  
September 13, 14, and 15, 1887.*

(Specially reported for THE MEDICAL NEWS.)

(Concluded from page 390)

THURSDAY, SEPTEMBER 15TH.

MORNING SESSION.

The adjourned discussion of Dr. Bantock's paper on  
THE TREATMENT OF THE PEDICLE IN SUPRAVAGINAL  
HYSTERECTOMY  
was next in order.

DR. MARTIN, of Berlin, said that the chief danger from the intraperitoneal treatment of the pedicle was hemorrhage. Hegar and Kaltenbach, in Germany, practised the extraperitoneal method. The reader learned the details of the operation from Péan, but it was thought that hemorrhage should be controlled during, as well as after, removal of the tumor. This

was effected by means of the India-rubber tube, which he was the first to introduce. After excising the tumor, his practice was to excise a wedge-shaped mass from the centre of the stump, and to bring the opposite surfaces together by means of superficial and deep catgut sutures. In this way bleeding was perfectly controlled. The statistics of supravaginal excision presented by Hegar and Kaltenbach were always referred to in support of the extraperitoneal method. A certain number of patients died of sepsis; this might occur whether the pedicle was within or without the abdomen. Many patients died from circulatory disturbances, as thrombosis and embolism; others from excessive hemorrhage. Undoubtedly the bad results from intraperitoneal treatment of the pedicle were frequently observed in the most severe cases, which were hopeless anyhow. By dropping back the pedicle, the parts were restored to their normal position. Statistics were not yet sufficiently extensive to warrant positive deductions. The great advance in ovariectomy had been made by Sir Spencer Wells, who originally fixed the pedicle outside, but the still greater advances of recent times were made since the pedicle was dropped back. Dr. Bantock had admitted that the ideal method was to drop back the pedicle; we should try to improve this method, and to perfect it until it was free from its present imperfections. The author stated that up to 1887 he had operated eighty-four times; eleven per cent. died of sepsis, and seventeen per cent. from hemorrhage and embolism. Among the last thirty, ten per cent. died.

Among the author's cases one was mentioned in which the pregnant fibroid uterus was removed. The speaker enucleated subperitoneal tumors in such cases, but did not perform amputation, and had in two or three instances saved both the mother and child.

PROF. SIMPSON, of Edinburgh, had seldom found it necessary to resort to the surgical treatment of fibroid tumors. It was impossible to say that there was any fixed plan of treating the pedicle suitable to all cases; each must be treated according to the necessities of the case. The clamping of the pedicle occupied less time than the preparation of the stump as described by the last speaker. Time was an important consideration in these operations. In one instance he was obliged to drop the stump back, as he had no clamp large enough to encircle it. The patient died on the fifth day, of septicæmia. He did not agree with Dr. Bantock as to not applying iron to the stump, since he had used the dried persulphate with satisfactory results.

DR. GARDNER, of Montreal, had operated five or six times, using the *serre-nœud* in every instance. He had seen no reason to adopt any other method. The extraperitoneal treatment had certainly furnished the best results thus far.

DR. H. MARION SIMS had always treated the stump extraperitoneally. His father had invariably met with bad results in the intraperitoneal method. The speaker had lost only two out of eight cases.

DR. MANN, of Buffalo, had tried the intraperitoneal method in one out of six cases, and was obliged to re-open the abdomen on account of hemorrhage; after that he had left the pedicle outside. All the patients recovered. He treated the stump with iodoform, and found that it remained dry for a week or ten days.

DR. VAN DE WARKER, of Syracuse had had four

cases; in two the stumps were treated intraperitoneally, in the other two they were clamped. One of the former patients died. In one instance, where the pedicle was included in the wound, a raw surface remained for a long time, necessitating a secondary plastic operation.

DR. BANTOCK, in closing, expressed great satisfaction at the fact that Dr. Martin was present to discuss his paper, and said that he was gratified to find that while his own mortality was 12 per cent., Dr. Martin's was nearly 25 per cent. Statistics alone were not enough; the main point was that among the speaker's fatal cases, there were much fewer deaths from septicæmia. The intraperitoneal method was much more attractive but was none the less dangerous. The ideal method had not yet been found. He believed that it was a mistake to apply any astringent to the stump; if the serrenœud was properly tightened, it would remain dry. The septic trouble began *below* the loop, hence the peritoneum must be accurately attached around the pedicle.

DR. R. BATTEY, of Georgia, read a paper entitled

#### BATTEY'S OPERATION: ITS MATURED RESULTS.

Alluding to the fact that he had ten years before presented a paper on the proper field for the operation, the reader said that when he first determined to perform it in 1872 he felt that it was a bold step, which must result either in the establishment of new principles in surgery, or in his own disgrace and professional ruin. The account of the first operation was published in 1872 and was widely read. The first recognition of the operation in Great Britain was by Prof. A. R. Simpson, of Edinburgh, who published, in 1879, the report of a case of double oöphorectomy. Mr. Tait had claimed some connection with Battey's operation soon after in an alleged conversation with Dr. Chadwick, in 1873, which conversation the latter was unable to recall. Hegar published, in 1878, the report of an unsuccessful operation which he had performed in 1872. Now numerous operations were reported from all parts of the country, but these reports were defective, in that the patients were not kept under observation sufficiently long after the operation. Since his work had been purely private, he had been able to keep the cases under observation for many years. He had preferred to retain the term "Battey's operation," since it expressed the object of the procedure (the production of the menopause) better than the terms "oöphorectomy," "spaying," "castration," etc.

He here presented a table showing the results in 54 cases of Battey's operation; 33 were cured and 8 much improved, 5 little improved, and 8 were not at all improved. The menopause was produced in 50 cases, while in 4 pseudo-menstruation persisted. Several of the cases were read in detail.

The following were his conclusions:

1. The change of life was a most important factor in securing the complete results of the operation.

2. In a few cases a cure occurred at once, but in the majority the patient passed through various climacteric disturbances.

3. The time which elapsed between the operation and the disappearance of these disturbances varies from one to three, or even five, years.

4. Some of the cases reported were badly selected and should not have been operated upon.

5. Patients addicted to morphine and other narcotics must abandon the habit in order to be perfectly cured.

6. Cases proper for operation, if allowed to suffer for years unrelieved would reach a stage when they would become incurable.

7. In a few cases intractable neuralgia in the stump developed after operation, and resisted all treatment.

8. A careful analysis of the cases showed that the removal of the Fallopian tubes did not appear to influence the production of the menopause or the final cure.

9. The operation was not infallible, the percentage of failures was large, but not more so than in many other operations in surgery, notably those for the cure of cancer of the uterus.

DR. SUTTON asked Dr. Battey if we were to understand that his operation was confined to the removal of the ovaries *alone*, and that the menopause was produced by the extirpation of the ovaries alone.

DR. JACKSON commended the modesty of Dr. Battey, and called attention to the uselessness of oöphorectomy statistics issued a week after the operation.

DR. PARVIN wished to know how frequently the tubes and ovaries had been removed in his operation.

DR. HOWARD alluded to the necessity of having some clear rules to guide in the performance of Battey's operation.

DR. LLOYD ROBERTS asked Dr. Battey to tell what the condition of the uterus was in his cases.

DR. HOWARD KELLY, of Philadelphia, said that his results in Battey's operation had been invariably satisfactory after the lapse of two or more years.

DR. POLK said that it was highly important to have an exact definition from Dr. Battey. Surgeons wished to know where they stood in this matter. What was the condition of ovarian disease that demanded removal of those organs? As regarded tubal disease, the indications were becoming clearer. We know no more regarding the exact amount of ovarian disease that demanded removal than we did fifteen years ago.

DR. BANTOCK said that he had always been under the impression that "Battey's operation" was synonymous with "normal ovariectomy."

DR. SIMPSON said that the patient on whom he had operated in 1879 had been much improved as regarded menstrual pain, but that she was not yet a healthy woman. Some of Dr. Battey's patients had been entirely restored.

DR. BATTEY said, in conclusion, that the removal of the ovaries was not a necessary element in Battey's operation; the change of life was the thing aimed at, not removal of the ovaries. The same result might be accomplished by simply ligating the ovarian vessels as proposed by Prof. Simpson. Removal of the ovaries, tubes and ovaries, or even of the entire uterus and its appendages, did not always bring on the menopause. The ovaries were invariably diseased in his experience. He removed the tubes whenever they were diseased; the ratio of tubal disease (pyo- and hydrosalpinx) was small. If the tubes were not diseased he removed the ovaries alone.

In reply to Dr. Polk, he said that he *did not operate for disease of the ovary*, that was a secondary matter. In many cases if we could stop ovulation, the patient would get well. He had never insisted on the necessity



of the existence of visible disease in the ovaries in order to justify their removal.

In reply to Dr. Bantock he said, that he was glad that the question had been asked, for he had tried for fifteen years to make foreign surgeons understand the scope of the operation. In 1881 he had read a paper before the International Medical Congress, repudiating the term "normal ovariectomy," yet only last year Sir Spencer Wells had thrown the expression in his face.

DR. A. W. JOHNSTONE, of Danville, Ky., read a paper on

#### THE INFANTILE UTERUS.

He said that the relation of the cervix uteri to the body was similar to that of the pylorus to the stomach; this idea was borne out physiologically by the anatomical difference in the blood supply, the direction of the muscular fibres, and the mucous membrane. The mucous lining of the cervix resembled that of the air-passages, its function being simply to secrete defensive fluids, especially the mucous plug of pregnancy, wherein it differed widely from the mucous lining of the body of the uterus. Clinical observations served to corroborate the theory that the cervix and body were practically two distinct organs; thus, the latter might be perfectly normal while the former was diminished in size. The reader believed that a large proportion of the cases of so-called congenital flexure were due to the non-development of the cervix, which caused that form of dysmenorrhœa which was cured by instrumental dilatation. Moreover, it would be found that this infantile condition of the cervix was especially favorable to the production of laceration. The endometrium was, in his opinion, not a mucous membrane, but it belonged to adenoid tissues. It had entirely separate nerve plexuses which entered it at the cornea, coming from centres in the broad ligaments. If development of this tissue was arrested at any point, the result was an infantile uterus. Traumatism was especially liable to bring about this result.

The reader referred to his studies on the innervation of the uterus. He had found that on each side of the uterus there was a large nerve which entered the cornu just below the insertion of the Fallopian tube. He believed that this nerve presided over the functions of the endometrium. Unless these nerves were divided close to the uterus during the removal of the appendages, the menopause would not be induced also, though both tubes and ovaries were removed. The reader summarized as follows:

1. The uterus was not only an independent organ, but consisted of two parts whose functions were entirely separate, and the growth of either one of which might be arrested.
2. From its exposed position the growth of the cervix was more apt to be interfered with than that of the body.
3. Congenital flexions were largely due to this arrest.
4. If the growth of the body was arrested, the development of the endometrium was interfered with, and sterility resulted; there was probably some lesion of the pelvic sympathetic in these cases.
5. If the body was markedly undeveloped, nothing was accomplished by dilating the cervix.
6. If life had become a burden the premature meno-

pause should be produced by dividing the trophic nerves, as before mentioned.

PROF. SIMPSON took exception to the author's inference that the ovary alone was supposed to dominate the uterus; it should not be forgotten that the tube also shared in this. It was important to distinguish clearly the difference between the cervix and corpus uteri, but it should not be forgotten that it was only after puberty that the true difference appeared.

DR. JOHNSTONE, in closing, said that ovulation might occur after the menopause, but the mucosa was not then under the dominant influence of the ovaries. The tubes did not dominate the uterus. He did not know where the nerve-centre of the uterus was, he only claimed that one of its largest trunks was situated just below the Fallopian tube.

DR. T. PARVIN, of Philadelphia, read a paper on

#### THE IMPORTANCE OF ANTISEPTICS IN PRIVATE OBSTETRIC PRACTICE.

He said that, while no one could question the utility of antiseptics, in private practice there was carelessness about using them. This was due to the incredulity of many with regard to the septic origin of puerperal fever. Women who were delivered at home should be just as carefully attended to as in maternities. Many septic affections were overlooked, because the patients did not die. An entire absence of sepsis in 500 cases of confinement did not prove that a practitioner enjoyed perfect immunity. Health returns were not always accurate. Even if one man was successful without using antiseptics, another might be misled into following the other's example with disastrous results. The puerperal practitioner was always liable to carry infection from surgical and infectious cases, and especially from autopsies. The day was coming when a physician, who lost patients from the neglect of antiseptic precautions, could escape neither the reproach of his own conscience, nor public censure. He showed a pocket-case which he had devised for carrying in a small space, various antiseptic instruments and sutures for repairing lacerations, etc.

DR. LAWRENCE, of Manchester, was disappointed that the author had not described his method of using antiseptics. He always had a warm carbolic injection given during the course of the labor, and introduced afterward an iodoform pessary night and morning. The mortality in private practice must be less than in the best hospitals.

PROF. SIMPSON recommended turpentine as an antiseptic wash for the hands. It removed all the noxious fatty acids. Then the hands were washed with soap and water.

DR. REED, of Glasgow, said that during the past seven years he had always used antiseptics before examining women. He made use of glycerine soap and carbolic acid (five per cent.) as a lubricant after cleansing the hands.

DR. KELLY said that in his own practice he had carried bichloride in gelatine capsules, seven grains in each. In order to avoid contamination from the bed he used a large inflated rubber or pad of a crescentic shape, having a piece of rubber cloth beneath it, which was prolonged below the ends of the crescent so as to fall over the side of the bed. It was very convenient in obstetric operations.

## EXTRAUTERINE PREGNANCY AND ITS TREATMENT BY ELECTRICITY.

DR. ELY VAN DE WARKER, of Syracuse, reported a case of extrauterine pregnancy in which growth of the foetus was arrested by means of the faradic current. The diagnosis was rendered certain by the history of suspended menstruation, the presence of irregular discharges of blood from the uterus, and the passage of a characteristic decidua membrane, while the patient suffered with attacks of agonizing pain in the abdomen. On examination a characteristic tumor was felt on one side of the uterus. Electrical treatment was entirely successful. Referring to the comparative certainty with which extrauterine gestation could be diagnosed at the present day, the reader urged the use of electricity as affording less risk to the patient than laparotomy, while it almost invariably arrested the progress of pregnancy.

DR. REEVE, of Dayton, referred to a case of extrauterine pregnancy which he had formerly presented to the Society. The expulsion of the decidua membrane added to attacks of violent pain and gushes of blood formed a picture which was hardly mistakable. But, the decidua could not always be found, since it was discharged a little at a time. The fact of a probable pregnancy should first be established. The tumor was a growing one, hence time would always clear up the diagnosis.

We did not know as yet just how long electricity should be used. There was only one reasonable way and that was to keep on until it was pretty certain that the vitality of the cyst was destroyed.

DR. SIMS said that he had treated a case of extrauterine pregnancy four years before, and had recently seen the patient, so that he was sure of her present condition. Dr. Rockwell had passed the interrupted galvanic current from fifteen cells, the patient being under ether. Fifteen severe shocks were given and eight or ten séances were held. After this the tension of the sac was clearly diminished, and the tumor gradually decreased in size. Now, nothing could be felt but slight induration at the site of the tumor.

DR. CHADWICK said that it was important to lay down clear rules as to the recognition of these cases. In all the reported cases up to a year ago, there was not a single one in which there was *certain* evidence of the existence of a foetus. The reader had used electricity every day for three weeks in a recent case. Five weeks after he had dismissed the patient she passed a portion of a foetus by the vagina, thus establishing the diagnosis positively. We could not depend on any one symptom in making a diagnosis. The examination of the decidua simply showed that it was the decidua of pregnancy. The reader in his case passed a sound to the depth of four inches into the uterus and thus proved that the organ was larger than it would have been if the case had been one of early abortion, as was first supposed.

DR. MARTIN, of Berlin, had operated on sixteen cases of extrauterine pregnancy. In Germany it was customary to operate at once. The attempt to kill the foetus was a very old idea. Morphine had been injected into the sac with successful results. Electricity had also been used in Germany with success. What

became of the ovum? It was often mummified and did not harm. Was it safe to allow the foetus to go on growing? There had been difference of opinion in Germany, but now it was conceded that it should not; be permitted to go on. Electricity was not popular.

Tubal pregnancy was the most common form, and could be easily diagnosed and operated upon in the early stages. He had removed a living child; he found no difficulty in dealing with the placenta, since he readily extracted it at the time. He did not believe in leaving it behind to become a large sloughing sac.

DR. APOSTOLI, of Paris, had been greatly interested in the paper. He thought that the electrical treatment of this condition had met with great success. Both currents had been used in France; he had met with better results in using the constant current, since the latter had succeeded where the faradic had failed. It might be applied to the interior of the uterus, or galvano-caustic puncture of the sac might be made through the vagina and a current of fifty milliamperes might be passed. The foetus would be killed in a few seconds.

DR. MANN said that he had long been interested in the subject. Could we make a diagnosis in the early stage of pregnancy? Undoubtedly, at least in this country. Dr. Martin had testified to the fact that the diagnosis was frequently made in Germany. The electrical treatment was better than laparotomy, because it was not so dangerous in the hands of the general practitioner. Very few cases had proved fatal, except where the sac had been punctured. Then if electricity failed laparotomy could be performed without added risk.

DR. JANVRIN referred to a case of tubal pregnancy in which the patient died from hemorrhage after three applications of electricity. Dr. Rockwell had placed the positive pole over the surface of the abdomen, the negative within the vagina. The current varied from twelve to sixteen cells (eighteen to twenty milliamperes). He thought that the foetus was killed at the first application. He was convinced that the colicky pains and symptoms of shock were due to the rupture of vessels in the peritoneal covering of the sac. Hence, he believed in performing laparotomy as soon as these symptoms appeared.

DR. VAN DE WARKER said, in closing, that there was no well-authenticated case of death due directly to the use of electricity, hence the woman ought to have the benefit of the chance. If Dr. Janvrin was right, there ought to be a hæmatocele after the rupture of the vessels, but there was none. Cases of death had been reported where the sac was punctured.

## AFTERNOON SESSION.

DR. FRANK P. FOSTER, of New York, read a paper on

## VAGINAL INJECTIONS IN SIMS'S POSITION.

He referred to the general extent to which hot-water injections were now employed in the treatment of pelvic affections, although the essential features of the treatment—the recumbent posture, and the amount and high temperature of the water used—were often omitted. Dr. Chadwick had called attention to the value of the hot rectal douche as a means of applying heat to the deeper parts of the pelvis, but the plan was defective in that the heat was only applied to the left side of the pelvis, and the water was used in the form of a large enema, the

initial temperature of which was soon lowered; moreover there was doubt if the water retained its situation after being injected. In order to fulfil the indications—*i. e.*, to apply the water as closely as possible to the seat of disease, and to employ a sufficient quantity to secure the greatest effect of the heat, the reader had been using vaginal injections with the patient in Sims's position, since in this way the vagina would retain more water, while from the gravitation of the abdominal and pelvic viscera toward the diaphragm, the water in the vaginal vault comes into closer relation to the affected parts than when the patient is placed upon the back. By means of the injection apparatus devised by the reader several years before, it was possible to give the injection without annoyance to the patient from the overflow of water.

DR. BARKER said that he had been accustomed to use Cleveland's bed-pan in giving vaginal injections. He thought that in private practice Dr. Foster's method would be objectionable to most patients in the higher walks of life, because of the extra trouble entailed, the wetting of the bed, etc.

DR. CHARLES JEWETT, of Brooklyn, read a paper on

#### THE TREATMENT OF PUERPERAL ECLAMPSIA.

He desired to call attention to the value of veratrum viride. The drug had been unpopular because of its poisonous qualities. But when a pure preparation was given hypodermatically, it was of great value. It acted by depressing the heart's action and relieving arterial tension. In eclampsia it acted on the vasomotors, paralyzing them. It was also a motor-spinal depressant. Alarming results might follow excessive doses; still there were no fatal cases on record in which it was used in convulsions. It was important for the patient to be recumbent during the course of the treatment. The fluid extract, made from the rhizome of the plant, was recommended by Dr. Squibb. It should be given hypodermatically, in doses of from ten to twenty minims. The guide was furnished by the frequency of the pulse. If the latter was reduced to sixty, no convulsions would occur. If no result was obtained in half an hour, the dose should be repeated. The reader had used the drug in twenty-three cases, sixteen patients being primiparæ, there being only three deaths (13.6 per cent.) due directly to the convulsions; three other deaths occurred from other complications. Other measures were employed at the same time, as chloroform and hydragogues. Veratrum never failed to arrest the convulsions when given early. The pulse fell in from forty-five to sixty minutes after the drug had been given. As regarded its safety, in no instance was any dangerous symptom observed. In one case the patient took six drops three times daily for three weeks. To recapitulate, the advantages of the drug were these: it was harmless and manageable, easily administered, and rapid in its action. Chloroform should be given until the effect of the veratrum was manifest. The labor should be induced as rapidly as possible, if it was not proceeding satisfactorily.

DR. KING, of Washington, approved of the remedy, which he had suggested twenty years before, in a paper in which he sought to explain eclampsia as due to arterial hyperæmia of the brain. In a recent paper the reader had stated that during pregnancy the normal position of the child was transverse. In primiparæ it

was usual for the head to descend below the brim during the later months of pregnancy. This premature descent caused pressure on the vessels, and produced hyperæmia of the brain. In three or four hundred thousand cases of pregnancy in primiparæ which he collected, in only a small number was the presentation transverse. Transverse presentations did not lead to eclampsia.

Veratrum certainly lessened the tension in the arteries. By feeling the arteries *above* the uterus in cases of eclampsia this increased tension would be noted.

In a discussion on this subject before the Obstetrical Section of the recent International Congress, one gentleman said that he gave only eight drops at a dose. He believed that a thin, undilatable os uteri in primiparæ was itself due to the premature descent of the head. Why did it occur? From the wearing of corsets, the weight of skirts, and from frequent coition during pregnancy. If these patients were placed in the knee-elbow position, the pressure would be relieved.

DR. BARKER called attention to the fact that he was the first one to use veratrum in this city forty years before, and that he published his results thirty years ago. He was rather disappointed to find that his words had apparently been forgotten. Veratrum was superior to all other arterial sedatives. He first used the drug prepared from the plant as it grew in Connecticut. He early tried Norwood's tincture, but found that it was twice as strong as the preparation which he had been accustomed to use. He had used veratrum for forty years without an accident.

DR. JEWETT closed the discussion with the remark that his original paper contained ample references to Dr. Barker's work. With regard to Dr. King's theory, it had occurred to him that, by external manipulation, the presentation could be changed to a transverse. He thought that convulsions were due to acute æmia from arterial spasm of the cerebral vessels, and that veratrum relieved this spasm, by paralyzing the vasomotors.

The discussion of Dr. Chadwick's paper on the operation for

#### VENTRAL HERNIA AFTER LAPAROTOMY

was next in order.

DR. LLOYD ROBERTS thought that prevention is the most important matter. Hernia has much increased in frequency of late, since drainage tubes have been so extensively used. He had seen hernia result from the use of catgut sutures, which dissolved before firm union of the wound had occurred. He invariably uses silk sutures, which are not removed until the eighth day; the longer they are left *in situ*, the firmer is the union. He removes the drainage-tube as soon as possible.

DR. JOHNSTONE said that Tait operates on umbilical hernia by splitting the tissues, turning one flap into the abdominal cavity and the other outside, uniting the denuded edges of the conjoined tendon between these two layers.

The scientific business having been completed, on motion of Dr. Reynolds,

#### THE THANKS

of the Society were unanimously given to the President for the masterly way in which he had presided over the most successful meeting which the Society has ever held.



DR. GRAILY HEWITT, in reply to Dr. Reynolds's

#### FAREWELL REMARKS

to the foreign guests, said that in the name of the foreign guests he offered an expression of their cordial appreciation of the courtesy which they have met with. It is a great privilege to meet the Fellows, and they will carry away the most flattering views of the work of the Society.

PROF. SIMPSON seconded Dr. Hewitt's remarks, and said that it has been a great gratification to him to recognize in the President a fellow-countryman. He would carry home useful hints.

DR. LLOYD ROBERTS reëchoed the remarks of the two speakers, and only regretted that he must part so soon from his new friends. He only hoped that he would be invited to the next meeting.

DR. LAWRENCE, of Bristol, said that if he got an easy passage back he would come again.

DR. BALLS-HEADLEY, of Melbourne, thanked the Society for the kind welcome which had been extended to him, and for learned papers which he had heard. He had passed one of the most agreeable weeks of his life at this meeting.

DR. CORDES, of Geneva, offered his thanks for the great kindness which he had received. He had enjoyed the hospitality of other nations, but none is equal to the American.

THE PRESIDENT said that he had been passing as an American citizen, but Prof. Simpson had "given him away." It takes a Scotchman to catch a Scotchman. He extended a cordial invitation to the foreign friends to attend their annual meeting another year.

Adjourned.

### NEWS ITEMS.

THE PENNSYLVANIA HOSPITAL has recently purchased about 520 acres about twelve miles from Philadelphia upon which it is proposed to place the Insane department of the institution. The report presented to the contributors at their annual meeting held last week, foreshadows the character of structure intended to be erected. It says:

"For the accommodation of those of the private class who are able and willing to pay for liberal accommodations, to apply in the best manner the results of medical administration for the advantages of all classes, the hospital of the future presents an interesting problem. Some of its features may be expected to differ from structures now in existence. A hospital edifice will still be required, but limited, perhaps, in extent to the probable demands for care of acute cases and those requiring, for any cause, special observation. The plans will probably provide for the close surveillance of suicidal cases at night and for the complete separation and isolation of noisy and turbulent cases from quiet patients. There should be large, well-lighted day rooms for disturbed and untidy persons, apart from their dormitories, so that the latter may be vacated during the day, and that the day rooms may be ventilated when unoccupied. Greater concessions will be made to patients of refined sensibilities, that in the early or in the convalescent stages they may be properly shielded from some scenes and associations that might prove objectionable. Greater

attention will be given to the needs and requirements of classes. Buildings with the attractive exterior of a country villa, free from some of the characteristics of a public institution or hospital, and an interior not unlike the arrangements of a private dwelling, will disarm the prejudices of friends, render the change from home less marked by contrasts of surroundings, and admit of an administration more nearly approaching that of a private family. While the degree of restriction may be greater in the hospital structure, in the detached villa it will be reduced to a minimum amount or entirely abolished. An intermediate class composed of harmless demented, paralytics, cases of mild forms of mental disorders, will remain to be provided for in wards that may be adapted to their requirements."

THE WASHINGTON CONGRESS.—*The British Medical Journal* of September 17th, devotes its leading editorial to the Congress and concludes as follows:

The President (Dr. Davis), we think, took a narrow standpoint in claiming for the Congress two principal uses—those of collective investigation, and of enlargement of views and increase of knowledge by mutual comparison and communication. Such means could almost be attained in these days of cheap and universal information and travel without any such machinery. Unless there be added to its undoubtedly excellent but limited programme an attempt at least to direct and draw together the profession throughout the world into one harmonious and comprehensive whole, the danger will arise that the more practical and far-seeing of the supporters of the Congress will begin to say "*cui bono?*" and that it may follow an unfortunate younger sister, the Social Science Congress of England, into an unmerited obscurity. We trust that there is no foreshadowing of any such undesirable event in the absence from Washington not only of several of the leaders of medical thought in Europe, but of some of those men who have made the American School of Medicine what it is.

A new departure to greater power and influence would have fitly marked the meeting in the titular capital of the United States. If Washington is a city of fine distances, it is one of few memories. No traditional policy need mar advance in a country whose independent history is barely one hundred years old, and whose School of Medicine has barely had an appreciable existence of two-thirds of that period. But the opportunity has been missed, and though many of the discussions and papers will no doubt be remembered and valued, we fear that the abiding impression with regard to the meeting at Washington will be one of disappointment.

A FRENCH VIEW OF BERLIN AS THE MEETING PLACE FOR THE CONGRESS OF 1890.—A writer in *L'Union Médicale* of September 17, 1887, thus expresses his feelings in regard to visiting Berlin in 1890: "Before adjournment the International Congress decided to hold its next meeting in Berlin. Although possibly the German delegates to the Congress did not outnumber the French, yet they found in America a number of partisans in their favor in Americans of German origin. At Copenhagen the protestations of French delegates, especially of MM. Trélat and Verneuil, were opposed to

Berlin as the place for the next meeting; this obstacle did not exist this year; as but a small number of Frenchmen were at Washington the capital of Germany was chosen by necessity. Will we go to Berlin in three years? I admit that I should prefer to go there in such a peaceful manner rather than be obliged to traverse a route strewn with the bodies of German and French soldiers. But do not ask me my real desire."

**A MEDICAL CONGRESS AT THE INTERNATIONAL EXPOSITION OF 1889.**—The Minister of Commerce proposes a series of Congresses of scientific men during the Paris Exposition of 1889. Among these will be a Medical Congress, and also a Congress of Hygiene and Public Assistance.

**THE THIRD CONGRESS OF RUSSIAN PHYSICIANS** will meet in St. Petersburg in April, 1888.

**PROFESSOR BILLROTH.**—This distinguished surgeon has steadily regained health and strength during the summer, and, it is believed, will resume his lectures in the autumn.

**PROFESSOR VIRCHOW'S REJECTION.**—Professor Virchow, as a candidate for Rector of the Berlin University, was recently rejected because, it is stated, of his liberal political opinions.

**A PRIZE BEQUEST TO THE ACADEMY OF SCIENCES OF FRANCE.**—The French Academy of Sciences has recently been given a legacy of 40,000 francs (\$8000), the income of which will be given as a prize for the best essay on any subject proposed by the Academy relating to the healing art.

**VON NUSSBAUM, OF MUNICH.**—This well-known surgeon has recently performed his five hundredth ovariectomy. The occasion was celebrated by a banquet, tendered him by the students of the university.

**OVER-PRESSURE IN SCHOOLS.**—An earnest discussion is occupying French medical men over the question of over-pressure in schools. It is claimed that in nearly all schools by far too much is exacted of the pupils, and measures are under discussion for lengthening periods of exercise; preventing work at evening; and improving the sanitary condition of school-houses.

The Austrian Minister of Public Instruction has recently issued a report based upon the studies of medical men which advises a better division of school terms, increased holidays, and the lessening of memorizing home work, and severe examinations. The Minister was aided in his investigations by four physicians, and the welfare of the scholar is considered from every standpoint.

**A PRIZE ESSAY ON SCHOOL HYGIENE.**—The Medical Society of the Canton Bern, in Switzerland, has offered a prize of 300 francs for the essay which replies best to the question, "How far can the physician remedy the over-pressure existing in Swiss schools, and what are the results of such over-pressure?"

**A NEW EDITION OF SCHROEDER'S DISEASES OF WOMEN.**—The eighth edition of this standard work has

recently appeared, edited by Veit, and containing Schroeder's picture and a short account of his life by the editor.

**NIGHT MEDICAL SERVICE IN VIENNA AND PARIS.**—In imitation of the Paris system of medical night service the Superintendent of Police has decided to establish stations for such service in Vienna, where a physician shall be constantly in attendance, and to which messages for attendance at night may be sent.

The report of the Prefect of Police for the three months ending June 30, 1887, shows in the night medical service of Paris a total of 1712 visits, an increase of 112 over the same period of the last year.

**PASTEUR'S TREATMENT IN TURKEY.**—No better field for the study of disease in dogs could be found than the Orient, where they are abundant in towns and cities. There will be no lack of canine material for a new institute of bacteriology to be established in Constantinople, to which all persons bitten by rabid animals are to be sent for preventive inoculation.

**POISONOUS COLORING MATERIALS IN TOYS.**—The Minister of Commerce of France has recently forbidden the employment in the manufacture of toys of the colored salts of arsenic, copper, and lead which are soluble in water. White lead may be used in making India-rubber balloons and stamped tin toys if it be combined with an oil varnish. The reds and yellows produced by the chromates and other salts of lead, may be used if applied with either oil or alcohol varnish. Prosecution for neglect of these laws will be against the manufacturer and not against the retailer, who will be guaranteed by the former that the goods are properly manufactured.

**PROFITABLE PRACTICE IN RUSSIA.**—Dr. Potain, of Paris, was recently summoned to attend an eminent Russian journalist with whom he remained two days. He received 20,000 francs (4000 dollars) for his services.

**PRANZINI'S BRAIN.**—The brain of Pranzini, a murderer recently guillotined in Paris, weighed 1280 grammes (between three and four pounds). An interesting phenomenon was the presence of air bubbles in the arachnoidean spaces, and between the convolutions, which is seen in the bodies of those guillotined. It is caused by the vacuum produced by the sudden withdrawal of a large quantity of blood from the vessels.

**AMBULANCES FOR THE TRANSPORTATION OF INFECTIOUS CASES.**—A force of ten ambulances is to be stationed in Paris, each of which will have its separate staff, whose lodging will be at the ambulance station. They will be fully equipped to act with the police and hospitals in transferring cases of infectious diseases without risk to the public.

**PROPRIETARY MEDICINES IN RUSSIA.**—The Russian government has just passed some stringent laws against proprietary medicines. The customs officers have been instructed that the entry and sale of medicines are only permitted under the closest conditions: The articles must not contain any ingredient injurious to health, and

the preparation must be one requiring for its manufacture expensive and complicated machinery, as well as long experience. It must not be liable to deterioration from age or transportation. The price at which the preparation may be sold in Russia is subject to the judgment of the Russian authorities, and its formula can only be kept secret for three years. All other preparations are to be excluded, nor can they be advertised in Russia.—*American Analyst*, September 15, 1887.

**LIGHT AND DARK CLOTHING.**—The *Epoch* of August 5th contains three papers on "How to Keep Cool and Well in Summer," by Drs. Cyrus Edson and Willard Parker, and Mr. David Jardine, which are in the main full of sensible advice. But Dr. Edson says it is best to wear dark clothing in summer, because black radiates heat more freely than white, and says that animals living in the Arctic regions are white, because that color holds the bodily heat. Dr. Parker, on the other hand, gives the usual opinion that light-colored clothing is best in hot weather. Dr. Parker is right and Dr. Edson is wrong.

The experiments of Coulier ("Expériences sur les étoffes qui servent à confectionner les vêtements Militaires, *Journ. de la Physiologie*, 1858,") show that the difference of absorption and radiation between different colors of the same stuff are not perceptible in the shade at temperatures between 70° and 100° F., while the white is much less absorbent than the black when exposed to the rays of the sun.

Dr. Edson's theory of the cause of the white color of animals in the Arctic regions, which we suppose he would extend to explain why the black races are found in the tropics, is one that is not in the least tenable.

The great point to be kept in view in selecting clothing for the hot weather is, not so much to provide for the hottest part of the day as for the evening when the temperature falls, and when cotton gauze underclothing is likely to lead to chilling the surface and to lay the foundation for rheumatic neuralgias of various kinds.

Thin woollen underclothing and light colored cotton stuffs for outer wear during the middle of the day are the best. The clothing should be loose to allow free circulation of air and evaporation from the skin. Tights are hot, though they may look cool on the stage.—*Sanitary Engineer*, August 20, 1887.

**PERMANENT BATHS.**—In the course of a paper (*Berl. klin. Woch.*, 1887, No. 29) upon the use of permanent baths (at a temperature of about 95° F.), L. RIESS, after giving instances of their value in cases of spinal disease and injury, adduces some rather remarkable facts of their efficacy in the treatment of dropsy, whether cardiac or renal. These cases are often complicated with bed-sores, erysipelas, and gangrene, for which such treatment would be suitable, but he says that he long withheld it because of the idea that cardiac or pulmonary disease would be a contraindication to its employment. However, in 1879, in a case of extreme cardiac dropsy (mitral and aortic disease) with considerable erysipelas and cutaneous gangrene of the legs, he determined to try the effect of the permanent bath as a last resort, not without some misgiving lest the immersion should increase the dyspnoea and dropsy. The result proved quite the reverse, for a rapid improvement took place,

and when, after having been in the bath for a fortnight, the patient returned to bed, the dropsy and other severe symptoms had disappeared. Since then Riess has adopted the procedure in a large number of dropsical cases, and invariably with benefit, the dropsy in most cases (whether renal or cardiac) diminishing within the first forty-eight hours in a striking degree. The quantity of urine is not increased *pari passu*, so that it is suggested that the effect of the permanent bath is to increase the functional activity of the skin, which is contrary to the prevalent notion. The good results obtained in cases of chronic rheumatism so treated are also mentioned, and it is held that the application of the method is practically very simple, it being necessary, of course, to allow the patient to lie comfortably suspended in a hammock, and to place a thick woollen covering over the bath to retain heat as much as possible. At first it is well to allow the patient to leave the bath at night, but as he gets more used to it he may spend days and nights in it with much comfort to both himself and his attendants.

## NOTES AND QUERIES.

### CORRIGENDUM.

Page 370, 2d column, 22d line, for "R. P. Kinloch" read "Cornelius Kollock, of Cheraw."

### OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 20 TO SEPTEMBER 26, 1887.

JOHNSON, R. W., *Captain and Assistant Surgeon*.—Granted leave of absence for twenty-one days, to be taken advantage of so that he will return to his station at the latest by the middle of October, 1887.—S. O. 204, *Division of the Atlantic*, September 23, 1887.

### OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING SEPTEMBER 24, 1887.

HARVEY, H. P., *Surgeon*.—Ordered to the U. S. S. "Mohican."

COOKE, G. A., *Surgeon*.—Detached from the "Mohican," and ordered home.

CLEBORNE, C. J., *Medical Inspector*.—Promoted to Medical Director, September 18, 1887.

WALTON, T. C., *Surgeon*.—Promoted to Medical Inspector, September 18, 1887.

BOYS, J. C., *Passed Assistant Surgeon*.—Promoted to Surgeon, September 18, 1887.

TRYON, J. R., *Surgeon*.—Ordered to Marine Rendezvous, New York, October 1, 1887.

FIELD, J. G., *Assistant Surgeon*.—Detached from Marine Rendezvous, New York, and ordered to the "Vermont."

### OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE WEEK ENDING SEPTEMBER 24, 1887.

WHITE, J. H., *Passed Assistant Surgeon*.—Promoted and appointed Passed Assistant Surgeon from October 1, 1887. September 13, 1887.

PETTUS, W. J., *Assistant Surgeon*.—To proceed to Savannah, Georgia, for temporary duty, September 20, 1887.

GOODWIN, H. T., *Assistant Surgeon*.—Appointed an Assistant Surgeon, September 22, 1887. Assigned to temporary duty, at Norfolk, Virginia, September 23, 1887.